

CHILTON'S

MOTOR AGE

April 1959

PASSENGER CAR MAKE AND MODEL		STANDARD ENGINE										OTHER		
		Number of Cylinders	Displacement (cu. in.)	Compression Ratio (to 1)	Max. HP (at 4000)	Max. Torque (lb.-ft. at 2000)	Recommended Fuel	Weight (lb.)	Weight (lb.)	Weight (lb.)	Weight (lb.)	Weight (lb.)	Weight (lb.)	Weight (lb.)
FLEX														
FLEX														



EIGHTH ANNUAL SPECIFICATIONS ISSUE

PRICE \$1⁰⁰

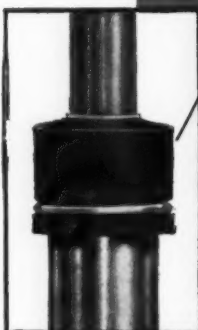
Only Perfect Circle gives you 2-WAY POWER PROTECTION!

1. Perfect Circle Valve Seals

solve problem of excessive oil consumption past valves!

New rings and restored valve efficiency produce higher compression pressures—and higher deceleration vacuum. Increased vacuum draws oil through loose and worn valve guides. Stop this loss with *new* Perfect Circle Valve Seals!

Be sure of customer satisfaction
—Install Perfect Circle Valve Seals on all re-ring and valve jobs.

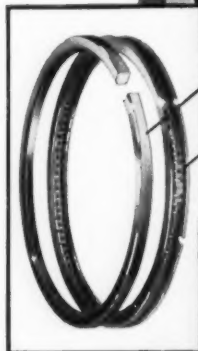


2. Perfect Circle 2-in-1 Chrome Sets

solve problem of excessive oil consumption past pistons!

2-in-1 Chrome sets provide the finest piston rings obtainable! Top rings and oil rings are plated with thick, solid chrome. Doubles life of cylinders, rings, pistons. No tedious break-in is necessary, rings are pre-seated at factory.

Be sure of customer satisfaction
—Install 2-in-1 Chrome sets for thousands of extra miles of power protection and positive oil control!



PERFECT



CIRCLE

PISTON RINGS AND

POWER SERVICE PRODUCTS

Hagerstown, Indiana

Don Mills, Ontario, Canada

ANOTHER **BLUE STREAK**
SECRET SERVICE TIP FOR YOU.

SHERLOCK McKANICK and MIKE

MIKE SAVES A
VOLTAGE REGULATOR

MOST EMBARRASSING, MIKE!
I ALMOST KILLED THIS VOLTAGE
REGULATOR WITH MY OWN
HANDS!

CHEER UP, SHERLOCK.
IT CAN HAPPEN TO ANYONE
WHO DOESN'T REMEMBER
THAT THERE ARE **THREE**
BASIC DIFFERENT TERMINAL
ARRANGEMENTS

PLEASE, MIKE, DON'T RUB IT IN...

ELEMENTARY,
MY DEAR SHERLOCK
BLUE STREAK SERVICE
BULLETIN 95-58
SAYS...

DELCO-REMY
TYPE



B A F

AUTO-LITE TYPE A
AND FORD TYPE



A F B

AUTO-LITE TYPE B



A F

GLOOM

"...TO AVOID A
FATAL MISCONNECTION,
BE ON THE LOOKOUT
FOR THESE VARIATIONS
IN TERMINAL LOCATIONS.

...THE SAME GOES FOR MOST REPLACEMENT TYPES, TOO."

YOU, TOO, CAN BE AN IGNITION
SLEUTH! JUST KEEP YOUR
EYE ON **BLUE STREAK**
SERVICE BULLETINS.

GLOOM

SHE'S SO
RIGHT!

...AND
REMEMBER!

FREE: SEND FOR SAMPLE **BLUE STREAK** BULLETIN
95-58 VOLTAGE REGULATOR "INSTALLATION CAUTIONS"
TO: STANDARD MOTOR PRODUCTS, INC. 37-18 NORTHERN BLVD.,
LONG ISLAND CITY 1, NEW YORK. (Once you're a
registered **BLUE STREAK** dealer, you get the
complete file.)

SO LONG
SHERLOCK!

NO WONDER
40,000 BUSY
DEALER SAY,
"BLUE STREAK
IGNITION IS
BETTER FOR
YOUR BUSINESS!"

WORLD'S FOREMOST
HEAVY-DUTY
IGNITION LINE



REGULATORS • SWITCHES • COILS • CONDENSERS • CONTACT POINTS • WIRE and CABLE

"...always ready to pitch in and help"

says **GARY WALSH**, Chrysler-Imperial dealer,
St. Petersburg, Florida

"With the customers we handle, smooth, efficient service is all-important. So we find it gratifying to work with COMMERCIAL CREDIT. They can be depended upon to handle finance paper work with a minimum of red tape or delay. Their local office people are always ready to pitch in and help. The nationwide facilities of COMMERCIAL CREDIT PLAN are, naturally, a strong point in our selling. The plan is well-known to folks from out of state, so they feel comfortable dealing with us. We know it's important for us to keep full control of financing, and we like the extra repair business that comes our way through the plan."

Commercial Credit dealers are successful dealers

Write or call the nearest COMMERCIAL CREDIT CORPORATION office for complete information on the benefits of COMMERCIAL CREDIT PLAN. Why not do it, today?



A service offered through subsidiaries of the
Commercial Credit Company, Baltimore . . . Capital
and Surplus over \$200,000,000 . . . offices in principal
cities of the United States and Canada.





whatever you clean and polish...



whatever you need to seal...



whatever needs service oils and fluids... whatever a cooling system needs...

THERE'S A PERMATEX PRODUCT TO DO IT BEST ...MADE FOR THE PROFESSIONAL!



You spend so much valuable *time* on all these jobs... isn't it logical to do them *right*... with the *best* products? Permatex products cost no more... yet do their jobs better and easier... make your work look good, last longer, satisfy customers more. And they're all made exclusively for you! Chemical products... made for the professional.

Send for your copy of the Permatex Catalog... which tells you how and where to use every member of this famous automotive chemical family. Ask your jobber or write us. Order the Permatex products you need!

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COMPANY, INCORPORATED

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"There's a Permatex product for every maintenance need"

SEALING COMPOUNDS • POLISHES AND CLEANERS • RADIATOR PRODUCTS • SERVICE OILS AND FLUIDS • HYDRAULIC FLUIDS • SERVICE AND REPAIR PRODUCTS

Chilton's MOTOR AGE • April 1959



Here's How to Make Thread Repairs Quickly and Permanently



... use **HELI-COIL*** **SCREW-THREAD INSERTS**

Packaged especially for the automotive industry in the new EZY-KIT, *Heli-Coil* one-piece, precision-formed, stainless steel, Screw-THREAD Inserts permanently re-thread stripped threads in minutes! They restore stripped threads to original size—and eliminate welding, plugging, oversized or stepped studs, custom machining, oversize drilling of mating parts.

Here's how: just drill out the old threads (including broken bolt or stud), tap, and wind in the *Heli-Coil* Screw-THREAD Insert.

You'll get: permanent, original size threads that won't wear, strip, corrode or seize.

EZY-KIT units are packaged for all types of engines and are recommended by Ford, G.M.C., Chevrolet, Johnson, etc. SHOP-PACK series covers larger range of sizes for heavy equipment including 14 MM spark plug. Just out—a *Heli-Coil* EZY-KIT for servicing the new Ford aluminum transmission housings. See your automotive distributor.

*Reg. U. S. Pat. Off.

HELI-COIL CORPORATION

3004 SHELTER ROCK LANE, DANBURY, CONN.

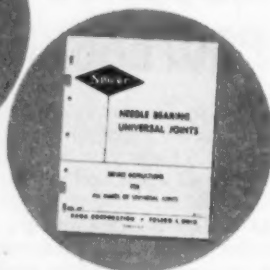
In Canada: W. R. Watkins Co., Ltd., 41 Kipling Ave., S., Toronto 18, Ont.

Stock only 4 Spicer Universal Joint Replacement Kits and you can service Universal Joints on 85% of all cars



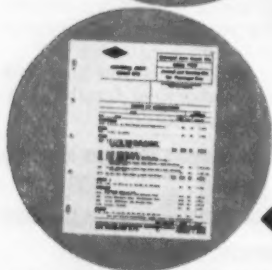
FREE

An attractive 4-Kit display



FREE

Complete installation instructions



FREE

Easy-to-read application sheet

CONTACT YOUR LOCAL DISTRIBUTOR OF SPICER PRODUCTS FOR FURTHER DETAILS



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Chilton's MOTOR AGE • April 1959

CHILTON'S MOTOR AGE

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APRIL 1959

Vol. 78, No. 5

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CONTROL!

and in trucks, tractors, and cars

OIL CONTROL

with Sealed Power KromeX Piston Ring Sets with Stainless Steel Oil Rings

Stainless steel oil rings are the reasons America's largest engine builders are using Sealed Power rings as original equipment.

New design... new material... fully tested! These rings come in fast, control oil even under high vacuum conditions or in tapered and out-of-round bores.

Just one of the reasons why...

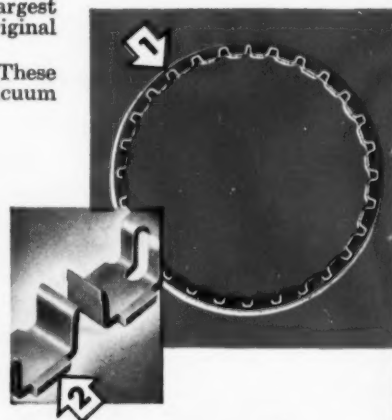
They hold their fit in the cylinder bore. Sealed Power stainless steel oil rings are self-expanding. The new end abutment design gives them the greatest flexibility ever built into an oil ring.

When compressed in the cylinder, the correctly engineered number of spring tension points provide uniform outward pressure—without any back-up springs or shims (see arrow 1).

An equal number of sturdy shoulders supporting each steel rail produce complete contact with the cylinder wall (see arrow 2).



SS-50U
U. S. Patent
No. 2,781,572



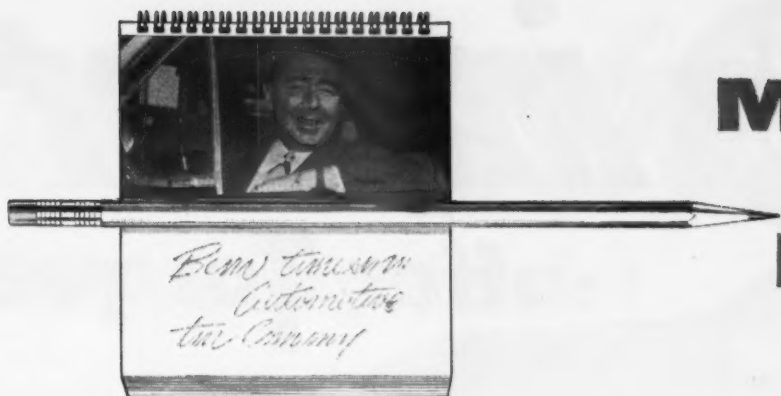
SEALED POWER CORPORATION • MUSKEGON, MICHIGAN

Sealed Power KromeX Ring Sets

BEST FOR RE-RING!

BEST FOR RE-BORE!





MOTOR AGE MEMO

Your Help Is Needed In This Holy Crusade

WHEN you serve you save. When you serve in the field of preventive maintenance you save your customers time, money, property, life and limb.

Those Motor Age readers who operate in the fifteen states and District of Columbia which require periodic inspection of motor vehicles by law, know the value and effectiveness of such laws. Every state in the Union should have them.

In the thirty-four states where no law exists, there is, upcoming, a genuine opportunity to serve your community. And, help yourself.

All through the month of May, thousands of communities will mark the 1959 National Vehicle Safety-Check.

Support This Program

Car dealers, independent garagemen, service station operators and tire dealers can lend their talents and strength to generate interest and back up Vehicle Safety-Check programs in their communities. It pays off in favorable public reaction. And, it provides work for your shops as well.

Last year, for example, in over 2,000 communities, more than 3,000,000 went through community safety lanes on a free and voluntary basis. ONE out of FIVE vehicles checked was found to be in need of immediate service attention to correct an unsafe condition.

The rallying cry is the slogan, "Join the CIRCLE OF SAFETY . . . Check Your Car—Check Your Driving—Check Accidents." The backbone of the program is a 10-point Safety-Check. This includes brakes, front lights, rear lights, steering, tires, exhaust system, glass, windshield wipers, rear view mirrors and the horn.

The most frequent item found to need attention is the rear lights. This is closely followed by brakes, front lights, exhaust system and tires. All this means safe summer driving for your customers and added business for you.

M. R. Darlington, Managing Director of the Inter-Industry Highway Safety Committee, suggests: "Here is what you can do to make sure that you help yourself by helping your community. First make sure your community participates. If not, set up a check lane in your place of business. Safety-Check your employees' cars and those of your customers. Make this a year around project. Offer 'Safety Specials' to your customers. Identify your place of business with your community's program."

To take advantage of all the useful promotional and display materials write us and we'll see that more details are sent you, post haste.

Faithfully yours,

Frank P. Tighe



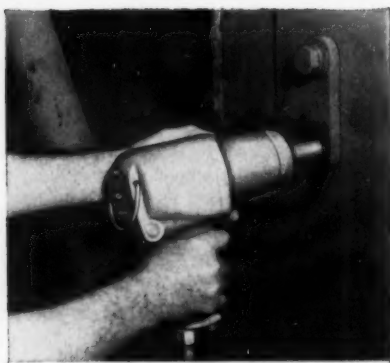
SIoux

impact offer Torque



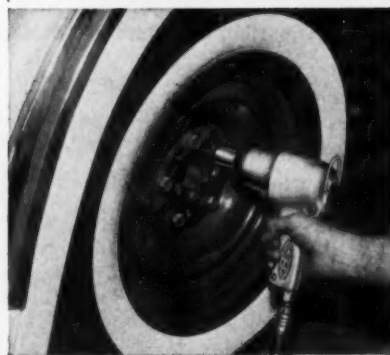
SIoux *Electric* **IMPACT WRENCHES**

Sioux electric impact wrenches offer equal power in right or left hand rotation. The torque for each wrench is stated and certified. Their mechanical design offers exactly the same advantages as that of the air wrenches. Their exclusive reverse cap switch lock prevents reversing with the current on, and eliminates burning commutator brushes and switch contacts. They are unexcelled in performance.



BIG "SLUGGERS!"

The Sioux No. 320 and 322 air impact wrenches achieve a new high in power to weight ratio. Certified torque as shown in specifications with 8 points of power selection makes them most ideal for heavy duty work.



More than MEDIUM!

No. 315 and 316 are popular industrial and general use sizes with great versatility of use and power for extra punch. They're designed for use where power is required beyond that of conventional 1/2" drive wrenches.

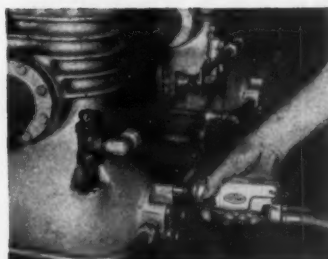


Medium POWER

No. 315 and 316 cover a torque range adequate for many purposes. They're thoroughly tested and proven. Thousands are in daily use.

Wrenches

for every task!



SIoux tells you the torque your air or electric impact wrench will deliver. (See specifications.) You don't buy just a wrench. You buy certified Sioux power! Reversible power. And on air wrenches controllable power through eight point power selector.

PROVEN EFFICIENCY

Here, the advantage of the exclusive Sioux mechanical design is revealed! You can expect your Sioux air impact wrench to deliver *25% more torque* while *consuming 30% less air!* Less power is absorbed by the wrench itself. More is applied to the drive!

FIELD TESTED, TIME TESTED PROVEN DEPENDABILITY

The exclusive Sioux impact wrench mechanical design has passed the toughest test of all ... the test of time. Thousands have been giving dependable, trouble-free service for years.

REACTION BALANCED for Less Vibration Feedback

All Sioux Impact Wrenches are "reaction balanced" for less vibration and torque feedback and for minimum operator fatigue. You can feel the difference!



**ANGLE
ATTACHMENT—**

used directly on the square of the impact wrench to reach those hard to get at spots.

Compare the TORQUE! the QUALITY!

Cat. No.	AIR Square Drive	Cap. Bolt Size	Torque Ft. lbs. at 90 lbs. Air Pressure at Tool
313.	3/8"	3/8"	60
314.	1/2"	7/16"	75
303*	1/4" Hex		
315.	1/2"	5/8"	130
312*	7/16" Hex		
316.	1/2"	5/8"	195
317.	5/8"	5/8"	195
318.	5/8"	3/4"	250
319.	5/8"	7/8"	425
320.	3/4"	1"	750
322.	1"	1 1/8"	1000
*AIR SCREWDRIVER			
Cat. No.	ELECTRIC Square Drive	Cap. Bolt Size	Torque Ft. lbs. in 10 sec. operation Right or Left
323.	3/8"	7/16"	75
333.	1/2"	7/16"	75
325.	1/2"	5/8"	125
330.	1/2"	5/8"	175
335.	5/8"	5/8"	175

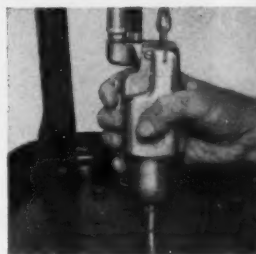
ALSO NO'S. 250, 262, 242, 246 ELECTRIC SCREWDRIVERS



Production type No. 313, 314!

AIR IMPACT WRENCHES

These models feature an exclusive remote air exhaust that takes exhaust 6 feet from the operator. Quiet, clean operation. Production type design with paddle switch, and 8 point torque selector. Ideal for auto transmission work.



No. 303 AIR IMPACT SCREWDRIVER

Same as above except takes 1/4" hex drive shanks for clutch head, Reed and Prince, standard, and Phillips screwdriver bits, and for Allen type socket heads.



SIoux's the BUY!

AIR IMPACT WRENCHES • AIR SCREWDRIVERS • DRILLS
• "PELICAN" NUT ACCUMULATORS • FLEXIBLE SHAFTS
• ELECTRIC IMPACT WRENCHES • GRINDERS • SANDERS
• POLISHERS • SCREWDRIVERS • PORTABLE SAWS •
VALVE FACE GRINDING MACHINES • ABRASIVE DISCS

ALBERTSON & CO., INC. SIOUX CITY IOWA, U.S.A.

Circle 351 on Inquiry Card, facing 3rd Cover



SELLING SLANTS

MONEY-MAKING FACTS

For sales **"PERFORMANCE offer your customers**

"SPARKY" says...

PERFORMANCE

...out of this world!



Great for Kids,
Order Your "SPARKY"
Here!



SPECIAL PROMOTION ADVERTISING will announce the "Sparky" offer to your customers in *Life* magazine, along with a special AC commercial promoting the vinyl inflatables offer on AC's popular television program, "Zorro".

And, in April and May, AC will support your sales efforts and "Performance Out of This World" campaign with . . . full-color, full-page ads in *Life*, *The Saturday Evening Post* and other nationally circulated publications . . . AC Spark Plug commercials on the ABC-TV adventure series, "Zorro" . . . and outdoor advertising on billboards in every large community.



OF THE MONTH !

FOR DEALERS

OUT OF THIS WORLD" "SPARKY" INFLATABLES!

A NEW KIND OF TRAFFIC BUILDER will help you spark AC sales this spring, during AC's "Performance Out of This World" spark plug campaign. An outstanding, traffic-building display for your station window includes a giant "Sparky" float toy and colorful window trim featuring the spring campaign theme . . . and a unique, customer offer.

During the campaign, you can offer your customers "Sparky" vinyl inflatables, like the one in your AC Spark Plug Window Display . . . a traffic builder if you've ever seen one!

You can buy a quantity of the vinyl inflatables at a special, low price and use them with "service specials" . . . such as the sale of a new set of AC Hot Tip Spark Plugs. And, you can provide AC order forms which will allow your customers to purchase the giant "Sparky" float toys at about half the normal retail price.

STORE SMALL PARTS IN THE AC STORAGE RACK! AC's new, small-parts storage board is the handiest, time-savingest parts holder ever. It's a sturdy, 18" x 24" all-metal board to which 18 small glass jars are attached. Just hang the colorful rack in a convenient location. Then store nuts, bolts and other small items in the handy *removable* jars. The parts are plainly visible and easy to get to. To help speed spark plug installation, the bottom of the storage rack includes an up-to-date AC Spark Plug Specifications Chart.

YOU CAN HAVE ALL THREE . . . Unique AC Spark Plug Display and "Sparky" inflatable . . . The new AC rack . . . and, a set of 8 AC Spark Plugs worth \$8.24 is the AC SPM-48 SP promotion package. To obtain the package here is all you do:

Include \$8.24 with your order for any 48 AC Spark Plugs and you will receive SPM-48 Promotion Package.

When you have sold the set of AC Spark Plugs you have recovered \$8.24. The profit from the sale of the spark plugs pays for the promotion package!

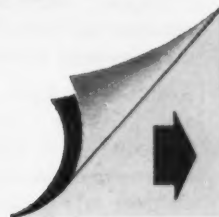


AC SPARK PLUG  THE ELECTRONICS DIVISION OF GENERAL MOTORS

CALL YOUR REGULAR



SUPPLIER TODAY!





SELLING SLANTS

MONEY-MAKING FACTS

BALLOON YOUR AC WITH "TRAPPER"

"TRAPPER" SAYS...
Get a clean start!

AC
OIL FILTER

CHANGE
OIL and FILTER
TOO!

Great for Kids,
Order Your "TRAPPER"
Here!

TRAPPER

SPECIAL PROMOTION ADVERTISING will announce your "Trapper" offer in *Life* magazine, along with a special AC commercial featuring the vinyl inflatables offer on AC's popular television show, "Zorro".

And, during April and May, AC will support your sales efforts and "Get A Clean Start" campaign with . . . full-color, full-page ad in *The Saturday Evening Post* . . . AC Oil Filter commercials on the ABC-TV adventure series, "Zorro" . . . and outdoor advertising on billboards in every large community.



OF THE MONTH !

FOR DEALERS

OIL FILTER SALES VINYL INFLATABLES!

A UNIQUE DISPLAY AND CUSTOMER OFFER will help you increase AC Oil Filter sales during AC's "Get A Clean Start" oil filter campaign this spring. The display includes a giant "Trapper" inflatable float toy and attractive window trim featuring the spring campaign theme . . . and an unusual customer offer.

During the campaign, you can offer your customers "Trapper" inflatables like the one in your AC Oil Filter Window Display . . . just the thing to build traffic *and sales* this spring!

You can buy a quantity of the vinyl inflatables at a special, low price and sell or give them away with "service specials" . . . such as a change of oil and AC Oil Filter. Or, you can provide AC order forms which allow your customers to purchase the giant "Trapper" float toys at about half the normal retail price.

NEW 16-PIECE "BALLERINA" DINNERWARE SET, created by Universal Potteries, will decorate your table and please your wife. This fresh, new dinnerware set is designed in the handsome Harvest Wheat Pattern, with a 22-carat gold edge and a cluster of wheat on each piece in the set. Sturdy, good-looking and oven-proof, each piece of this high quality dinnerware is guaranteed against glaze cracking due to heat or cold. In the service for four, the set includes four luncheon plates, four dessert dishes, four cups and four saucers. Additional pieces of this serviceable dinnerware are available in open stock at leading department stores.

GET THESE THREE in the AC Oil Filter Promotion Package for spring . . . The unique AC Oil Filter Display and "Trapper" vinyl inflatable . . . 16-piece set of high quality dinnerware . . . and, three AC Oil Filter Elements worth \$7.60! To obtain this package here's all you do . . .

Include \$7.60 with your order for any 24 AC Oil Filters and the OFM-49 Promotional Package! When you have sold the three extra AC Oil Filter Elements you have recovered \$7.60. The profit from the sale of the extra elements pays for the promotion package!



**CALL YOUR REGULAR
AC SUPPLIER TODAY!**



AC SPARK PLUG  THE ELECTRONICS DIVISION OF GENERAL MOTORS



SELLING SLANTS

MONEY-MAKING FACTS

Open her eyes . . .

**with this multi-colored
Sheet and Pillow Case set!**



Get it for her with this AC Fuel Pump Promotion

Here's your chance to give your little lady a pleasant surprise and build your Spring fuel pump sales at the same time. Join the big Spring AC Fuel Pump Promotion and bring home this truly beautiful, truly different sheet and pillow caseset, designed by famous Cannon Mills. The set includes one double-bed (size 81" x 108") sheet and two large pillow cases (42" x 36"), all in multi-colored stripes and gift-wrapped to really open her eyes. The material is Cannon Combspun Percale, highest quality in the sheeting industry. She'll love it . . . and she'll love you, too . . . for your thoughtfulness.



All you do is . . .

Include \$8.70 with your order for any 6 AC Fuel Pumps and you'll receive the FPM-50 Package which includes: the Cannon Combspun percale sheet set and the popular #4460 AC Fuel Pump for Chevrolets. When you sell the pump, you recover your \$8.70 investment. The profit on the sale of the extra pump pays for the promotion package.

Pump up your Profits with **AC Fuel Pumps!**

OF THE MONTH !

FOR DEALERS

New Model AC Tester Adjusts to All Air Cleaner Sizes!



Now, with new cars coming out with many different sizes of air cleaners, AC has solved the problem of testing all sizes with just one tester.

This new model AC air cleaner tester can be quickly and easily adjusted to fit any size dry-type cleaner—from small to very large circumference.

New Air Control Valve Does It!

The new air control valve (shown left) permits the adjustment. New easy-to-follow instructions are printed right on the tester.

Once adjusted, the new model works just like previous models. It shows you instantly whether an air cleaner is functioning properly, whether it is partially clogged and needs cleaning or whether it is completely clogged and should be replaced.

It's an excellent demonstration for customers—helps make air cleaner sales on the spot.

Your Present Model "M" Brought Up To Date **Without Charge!**

As you may know, the present Model "M" AC air cleaner was introduced in 1957, when there was a limited number of types and sizes of air cleaners in operation.

If you purchased one of these models, AC now makes it possible for you to bring this tester up to date . . . *without charge*.

AC has developed a special conversion kit

that includes the new air control valve, a new tube and new instructions for operating. With this kit, your present tester can quickly be converted, so you can test any size cleaner. In fact, it becomes a new model tester.

Your AC representative will contact you soon . . . and make this conversion. Again . . . *no charge for the service*.

Get your new tester now from your regular AC supplier and get more air cleaner business by selling **AC DUST-TITE AIR CLEANERS!**

AC SPARK PLUG  THE ELECTRONICS DIVISION OF GENERAL MOTORS

FREE!

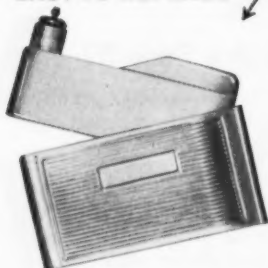
\$8.95 Retail Price

SCHICK butane lighter with an order for 6 Exide batteries*

- Lights for months without a refill
- Flame adjustable for cigarettes, pipes or cigars
- One year Schick Factory Guarantee
- No fluid—no wicks—no odor
- Rich looking, chromium-plated case
- Made by the makers of famous Schick electric shavers



THROW AWAY FUEL TANK,
EASY TO REPLACE



LIGHT UP NOW WITH EXIDE

This is the easy way to get amazing new Schick butane lighters free—and make money doing it—with easy-to-sell Exide batteries. Place your order now. Order again and again. Get more lighters free to use as gifts! Offer expires May 31, 1959.

*Wet or dry charged (with acid at no additional cost). See your Exide distributor for details.

CALL YOUR EXIDE DISTRIBUTOR OR

EXIDE AUTOMOTIVE DIVISION, Dept. MA-4, P. O. Box 6266, Cleveland 1, Ohio
Please send me the name of the nearest Exide distributor.

NAME _____

ADDRESS _____

CITY _____ ZONE _____ STATE _____



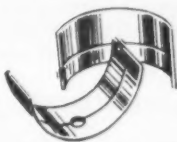
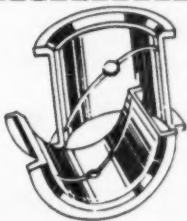


**"She will go anywhere
since I installed
Johnson Bronze Bearings"**

Your customers will recognize and appreciate the extra quality which Johnson bearings give to an engine repair or rebuilding job. Use Johnson bearings for complete customer satisfaction. Available from your nearby Johnson distributor. Johnson Bronze, 455 S. Mill Street, New Castle, Pa.

"Used as original equipment for over 40 years"

**JOHNSON
Bearings**



Main Bearings • Cam Shaft Bearings • Transmission Bushings • Con-rod Bearings
Piston Pin Bushings • Starter, Generator, Distributor Bushings

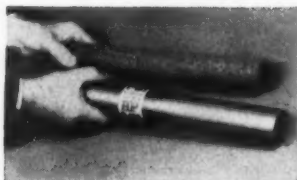
Sign Up Now As an AP and Watch Business Boom



30,000 AP signs make motorists want AP. Get yours and make sales.

Over 30,000 of the giant AP signs are seen by millions of motorists daily, identifying the AP brand with the dealers displaying them and creating new customers—an army of signs constituting the hardest-working national billboard campaign on quality mufflers ever undertaken. This powerful sign is now available in two sizes. Get one from your AP wholesaler and watch your profits grow!

DEALERS REPORT IT INCREASES ALL SALES, NOT JUST MUFFLER SALES...▶



AP NON-RUST pipes end your pipe-stocking worries

Photo at left shows dramatic proof that AP Non-Rust pipes will stay shiny and new till installed. After a grueling salt spray test equal to months of unfavorable storage conditions, the Non-Rust pipe is like new, while the uncoated pipe is badly rusted.



MUFFLERS LAST LONGER ALL 3 WAYS:

Muffler Specialist on ALL Your Services

Dealers from coast to coast tell us that when they put up the big AP sign, business boomed—not only on mufflers, but on *all* service work—and on gas, oil and other parts and accessories too. Display an AP sign—profit from the greatest promotion of a quality muffler in history.

**MORGAN BEATTY, NATIONAL MAGAZINES, AND 30,000 A-BOARDS
ARE SELLING AP MUFFLERS FOR YOU IN YOUR MARKET**



Night after night, week after week, this top-rated news show over the vast NBC radio network tells millions of motorists to stop where the AP A-Boards are—and you should get a big share. In addition, the powerful AP ads in national magazines will be pulling for you.

Local radio, TV and newspaper advertising ready for you. Radio scripts, television spot films, and assorted newspaper mats are available to you and your AP wholesalers *free*. Here are easy-to-use tools for low-cost local tie-in with AP's national program.



Gallage up 30%, other business up 35%. "I used to do 10 muffler and pipe jobs a month. After putting up the A-Board, I sold 29 mufflers and 39 pipes the first month and 31 mufflers and 42 pipes the following month. Gallage is up 30%—other business up 35%. The A-Board is the answer—best display I ever used."—Elmer Rohloff, Phillips 66 Station, Bradenton, Fla.



Builds business, attracts new customers. "What we like most about the big AP sign is that it's built business by attracting new customers. We're in a neighborhood shopping district, and the A-Board encourages customers to have service work done while they shop. Muffler jobs have increased about 300%."—Jack Richford, Queen Anne Mobile Service, Seattle, Wash.



Accessory sales tripled. "My station has competition on the other three corners; business is 50% transient. A year ago, I averaged less than \$300 a month in total accessory sales. Now, thanks mainly to the A-Board and the AP Muffler Specialist Program, accessory sales have increased to \$900 a month."—Charles Cooper, Cooper Shell Service, Reynolds Corners, Ohio.



Greatly increased station profit structure. "Before putting in a stock of AP Mufflers and displaying the A-Board, we installed very few mufflers and pipes. Our muffler and pipe installations have increased over 100%, and the business is still growing. I feel the A-Board and a general emphasis on mufflers and pipes have greatly increased my station profit structure."—Jack Goldberg, J & S Gulf Service Center, Brighton, Mass.

SEE YOUR WHOLESALE NOW AND SIGN UP AS AN AP MUFFLER SPECIALIST

THE AP PARTS CORPORATION 3Q AP Building, Toledo 1, Ohio

Exhaust Systems for Better Motoring

THICKER STEEL • COATED STEEL • "DRI-FLOW" DESIGN

NEW TUNG-SOL 536

Two-Terminal HEAVY DUTY FLASHER

*For replacement in vehicles originally equipped
with standard two-terminal flashers*

**Like the three-terminal 534 and 535,
it's built with twice the life of other flashers**

For the first time... a two-terminal heavy duty flasher that meets the requirements of the biggest part of the truck replacement market as well as the vast majority of passenger car trailer applications — U-haul, boat and house trailers.

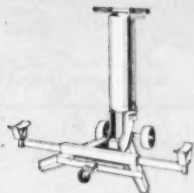
The new Tung-Sol 12-volt 536 is identical in performance with the 534 three-terminal type: It flashes one to six 21cp or 32cp lamps without a perceptible change in the flashing rate... delivers an instantaneous four-lamp emergency warning... lasts twice the life of other flashers... insures more positive action and great dependability. Electroswitch Division, Tung-Sol Electric Inc., Newark 4, New Jersey



TUNG-SOL® — *First in Flashers*



**OTHER BAY PRODUCTS FOR
GREATER SERVICING
EFFICIENCY**



1. Bay K-3000 Bumper Jack — Air-operated, rotating saddles that lift from braces, full year guarantee.



2. Rocker-Head Stands — Companion equipment that multiplies utility of Bay-Lift or Bumper Jack.



3. Ramps — Simplest elevating method in existence for frequent jobs.

how badly you need a **BAY-LIFT®** depends on how often you keep a good man down!

Portable, Air-Operated BAY-LIFT Eliminates Wasted Waiting Time of Mechanics

Nobody likes the delay in service garages that occurs when mechanics are held up, waiting for suitable lifting equipment to be free. It's frustrating to the mechanics. It's a profit-robbing situation, a major drag on the efficiency of any shop.

Progressive service operators the nation over are putting low-cost Bay-Lifts to work, with surprising results. The Bay-Lift is rolled under, where the car stands, air hose is attached and —whoosh—the vehicle is at any desired height, over the head of the mechanic or lower, in 10 seconds or less. It's locked automatically at any height, for absolute safety. And working conditions are clear and convenient, more so than by any other lifting method.

Time saved by a Bay-Lift goes far beyond elimination of waiting time. Every job goes

faster with a Bay! Hard-to-get-at jobs become easy. Even smaller shops turn out 3 to 5 extra jobs per day.

You should try this unique piece of equipment to even begin to realize what it can do for your operations. Send us a note on your letterhead, and we'll have a representative call to demonstrate.

ONLY \$380.00

BAY LIFT®

DIVISION OF LIFE TIME PRODUCTS CORP.

P. O. BOX 85-MA, CANFIELD, OHIO
Bay Overseas Division, 276 West 43rd St.,
New York 36, N. Y.
Cable Lopreh, New York

BAY-WORLD'S MOST WIDELY USED AIR LIFT

In G-E SUBURBAN Headlamps... it's the low beam filament on focus that provides the "spotlight" effect!



THERE'S TWICE AS MUCH LIGHT IN THE "SPOTLIGHT" AREA. There's more light farther ahead down the right side of the road, than with any previous two-headlamp system. Even if the oncoming car's lights are aimed high, or if the other driver fails to "dim", a pair of General Electric SUBURBAN Headlamps helps motorists see better beyond approaching cars when they're 75 to 200 feet apart. After passing, this extra light helps the driver recover his vision more quickly...and makes for safer night driving.

IDENTICAL HEADLAMP NUMBERS DO NOT MEAN IDENTICAL PRODUCTS. The standardization of headlamp numbers applies *only* to nomenclature, mechanical interchangeability and service location on a car—and are *not* indicative of lighting results achieved, beam characteristics, nor internal construction features of the lamps. *No other headlamp* at this time uses an on-focus filament for the low beam, even though other headlamps may bear the same lamp identification numbers.



G-E 6006 FOR 6-VOLT CARS
G-E 6012 FOR 12-VOLT CARS

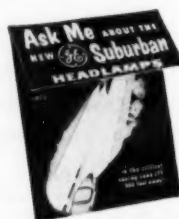
AND HERE'S THE ADVERTISING AND PROMOTION SUPPORT THAT'LL HELP YOU SELL 'EM IN PAIRS



SALES PRODUCING ADS—in big circulation magazines reach nearly all motorists. Tie-in, sell 'em in pairs, and add to your profits by aiming each pair of G-E SUBURBAN Headlamps you sell.



"SEE FOR YOURSELF" DEMONSTRATOR—Attractive, eye-catching. Customers see "before" road scene, then lift up die-cut flap to see dramatic "spotlight" effect of G-E SUBURBAN Headlamps.



BREAST-POCKET DEMONSTRATOR—Each man can wear one. Catches customers' attention. Graphically demonstrates the many benefits of General Electric SUBURBAN Headlamps.



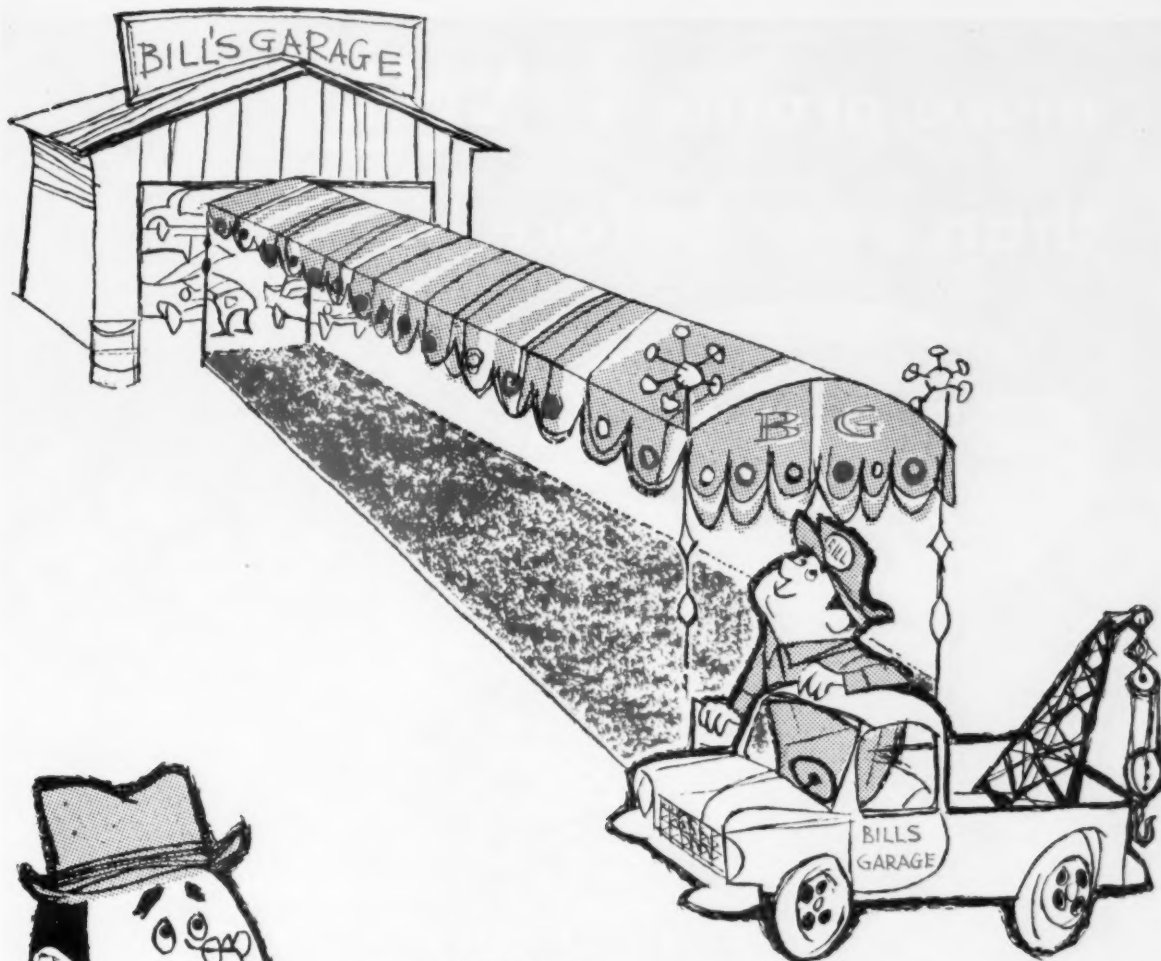
WINDOW STREAMERS AND DECALS—3-color streamer with DAY-GLO ink. Pressure-sensitive, 2-face decal in 3 colors. Fastened to windows or doors they flag customers' attention.

COMPLETE PACKAGES OF THESE SALES AIDS ARE AVAILABLE FROM YOUR G-E SUPPLIER TODAY!

General Electric Co., Miniature Lamp Dept., Nela Park, Cleveland 12, Ohio

Progress Is Our Most Important Product

GENERAL  ELECTRIC



*Bill really gives
customers the
red carpet*

*No, customers bought
it for Bill because he
replaces with
Timken® bearings*

You can be a red-carpet celebrity to your customers by doing good work and using the best replacement parts. So whenever the job calls for a tapered roller bearing, install a Timken® bearing. And tell 'em it's Timken. Customers know a "quality" name when they hear it. And Timken is America's best-known name in bearings. The Timken Roller Bearing Company, Canton 6, Ohio. Canadian plant: St. Thomas, Ontario. Cable: "TIMROSCO".



TIMKEN
TRADE-MARK REG. U. S. PAT. OFF.

TAPERED ROLLER BEARINGS

CUSTOMERS LOVE YOU WHEN YOU REPLACE WITH AMERICA'S BEST-KNOWN BEARING...JUST TELL 'EM IT'S...

more profits **HERE**
than ever before...

WITH THE NEW
CARTER
Zip-Kit

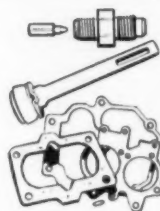


**GENUINE ORIGINAL
EQUIPMENT PARTS**

At a Sensationally Low Price!

Now make more profit two ways! *Sell* the need for a quick carburetor clean-out with every tune-up... then *insure* your skills and labor with *genuine original equipment parts*... in the new *low-priced* Carter Zip-Kit! Made by the same manufacturer whose carburetors are on 24 million cars today... now available to you at a tremendous per-kit saving! Call your supplier today.

EACH KIT CONTAINS



**NEEDLE AND SEAT •
PUMP PLUNGER •
GASKET SET •
FLOAT GAUGE •** Complete application information and simple instructions for quick, easy installation.

NEW PROTECTIVE PACKAGE

Each Zip-Kit enclosed in air-tight, moisture-proof, heat-sealed, metallic foil. No more "mysterious disappearance" of parts!

CARTER

CARBURETOR

DIVISION OF QCF INDUSTRIES, INCORPORATED

2840 N. SPRING AVENUE • ST. LOUIS 7, MISSOURI



4 STEPS FOR
INCREASING
PROFITS!

NEW

EQUIPMENT MAKES
AUTOMOBILE AIR CONDITIONING
SERVICE *EASY!*

1

**YOU, Too, NOW Can Provide
PROFESSIONAL SERVICE FOR
ALL MAKES AND MODELS OF
CAR AIR CONDITIONERS WITH**



- ★ CUTS SERVICE COME-BACKS AS MUCH AT 85%—One Dealer Reports
- ★ REDUCES SERVICE TIME UP TO 50%
- ★ A COMPLETE "PACKAGED" MACHINE FOR ALL SERVICING, INCLUDING LEAK-TESTING

Smaller AIR-CON Model Serves Where
Air Conditioning Service Traffic Is Light



2

SELL *FrigiKing*

- ★ FASTEST COOLING AIR CONDITIONER FOR 161
MAKES AND MODELS OF CARS — 1952 to 1959
BUICK • CADILLAC • CHEVROLET • CHRYSLER • CORVETTE • DE SOTO
DODGE • EDEL • FORD • LINCOLN • MERCURY • OLDSMOBILE • PACKARD
PLYMOUTH • PONTIAC • RAMBLER • STUDEBAKER • THUNDERBIRD
- ★ FOR QUICK EASY INSTALLATION ON ANY
CAR IN YOUR PRESENT INVENTORY... OR
ON ANY OF YOUR SERVICE CUSTOMERS'
PRESENT CARS
- ★ EXCELLENT SALES AIDS FURNISHED



3

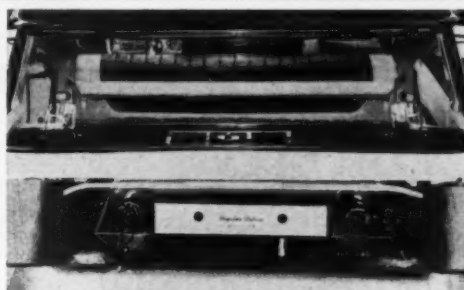
**FURNISH FRIGIKAR *Deluxe*
BACK-PACKAGE-TRAY AIR CONDITIONER**

- ★ FITS CONVENIENTLY INTO TRUNK COMPARTMENT OF ANY AMERICAN-MADE CAR

SPECIAL AUXILIARY KIT

In cars with extra-large glass area... or limousines, ambulances, etc... special component kit permits tying-in to an existing under-dash unit (FrigiKing or any other brand, factory-installed or independent) using same compressor.

- ★ COMBINES WITH FRIGIKING UNIT FOR COOLING AMBULANCES, LIMOUSINES, ETC.



4

WRITE-WIRE-or PHONE
Today FOR Dealership DETAILS
TO

FRIGIKAR CORP.

PIONEERS SINCE 1949
1602 COCHRAN ST. DALLAS, TEXAS
Phone Riverside 1-1661

- ☐ Send FRIGIKING Dealership Details and Literature
- ☐ Send AIR-CON Details. ☐ Interested in buying a machine
- ☐ Interested in AIR-CON Distributorship
- ☐ Send FRIGIKAR Dealership Details; ☐ Also literature on Auxiliary Kit

NAME _____ TITLE _____
FIRM NAME _____
ADDRESS _____
CITY _____ ZONE _____ STATE _____

Not all bonded brake shoes

In '59 Raybestos sells for you on NBC-Radio "MONITOR"



Spring and summer—the peak driving period—is Raybestos' peak promotion period. During this time your customers and prospects will be hearing about America's favorite brake lining again and again on the country's most famous radio program—NBC's "Monitor." And as the leading consumer advertiser of brake lining, Raybestos will fire a steady barrage of ads from the pages of *Motor Life*, *Motor Trend*, and *Hot Rod* throughout the year. The result will be more brake work for you. And with Raybestos it's highly profitable. Just three relines a week at \$30.70 per job (based on average figures from Gasoline Retailer Flat Rate Manual) means you clear \$47.61 a week.



The new 1959 Chevrolet brake shoe with "fire band groove" to dissipate heat. Now available.

*Ask your jobber salesman for the free booklet featuring the 21 check points that prove Raybestos bonded brake shoes the finest in the field, or write to us.

are as safe as Raybestos*

**To make the most of the mighty "Monitor" blitz,
make sure you use all these potent weapons**



Display this mammoth attention-getter to let everyone know you offer the famous . . .

Raybestos **7 POINT
BRAKE
CHECK**

(includes adjustment)

1. Pull front wheels, inspect linings
2. Check brake drums
3. Inspect front wheel bearings
4. Clean brake assembly
5. Check hydraulic system
6. Adjust brakes or recommend reline
7. Road test brakes

The one merchandising plan that really makes wheels off pay off. And remember, you get paid for every car you check.



Raybestos Brake Service Clinics (featuring the newest film with details of the '59 brake changes) and Brake Service Guides train your mechanics. Raybestos jobbers—there's sure to be one near you—sponsor clinics regularly.

RELINING WITH
Raybestos
AMERICA'S BIGGEST SELLING FRICTION MATERIAL



RAYBESTOS DIVISION of Raybestos-Manhattan, Inc., BRIDGEPORT, CONN.
RAYBESTOS-MANHATTAN, INC., Brake Linings • Brake Blocks • Brake Fluid • Clutch Facings • Industrial Rubber • Mechanical Packings • Asbestos Textiles • Engineered Plastics • Sintered Metal Products • Rubber Covered Equipment • Laundry Pads and Covers • Abrasive and Diamond Wheels • Industrial Adhesives • Bowling Balls

3-MOUNTAIN -YEAR THE WORLD'S WITHOUT A

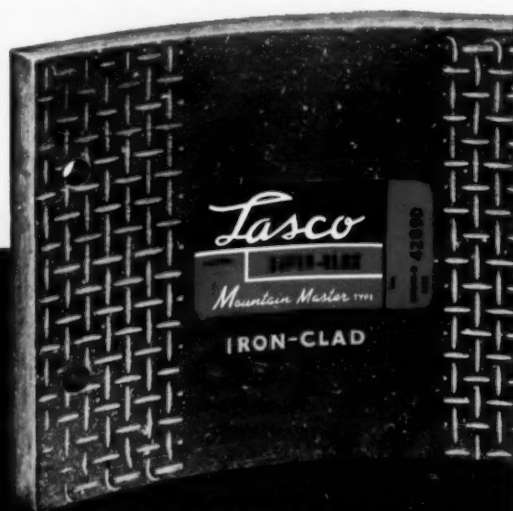
For years Lasco MOUNTAIN MASTER Brake Lining has been guaranteed for A FULL 3 YEARS! Competitive brake lining manufacturers have been searching their dictionaries for "superlative terms" to describe the "quality" of their product—but regardless of what they "say," no one competitor comes even near MOUNTAIN MASTER'S 3-YEAR GUARANTEE.

WHY? Because they know the "champion" and that they are "licked!" Competitive manufacturers don't dare to meet the challenge—they know their own products won't stand up to MOUNTAIN MASTER and a 3-year guarantee!

Lasco "MOUNTAIN MASTER" SUPER BLOX
THREE YEAR
Certificate of Guarantee

Owner's Name _____ Date _____
City _____ State _____
Make of Car _____ Model _____ Year _____
Speedometer Reading _____
Name Brake Service Station Installing "Mountain Master" Super Blox _____
Address _____ Telephone _____
Signed _____
Remarks _____

(See Reverse Side for Conditions of Guarantee)
Return Duplicate Copy to Your Lohar Spring & Tire Branch



Lasco Brake Blox are engineered by an exclusive, patented process and "iron-clad" for amazing strength and durability. Available in drilled and undrilled sets in three different types: VICTORY—high friction, MOUNTAIN MASTER—medium high friction, and LOGGER—medium friction.

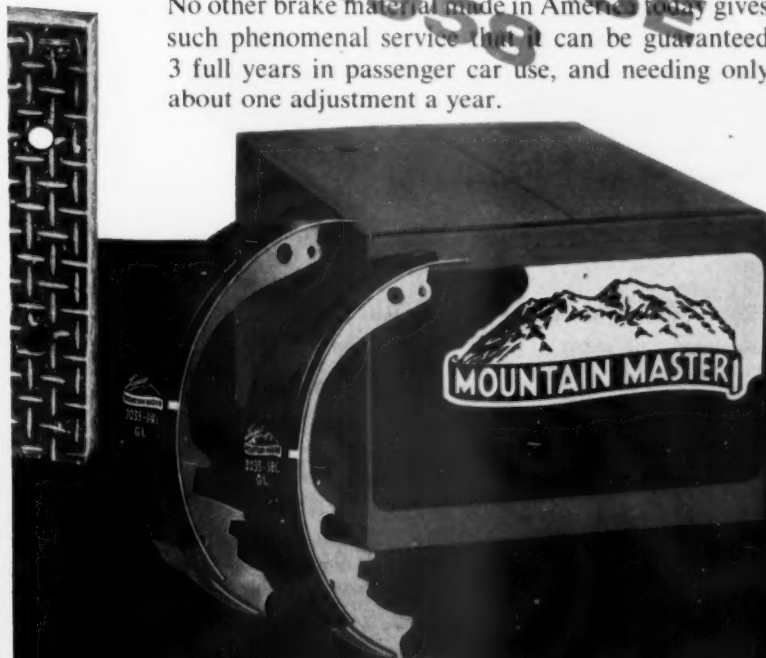
NOTICE!
VOLUME BRAKE BLOCK DISTRIBUTORS
special money-making deal
write us today

MASTER (Iron-Clad) GUARANTEE CHAMPION CHALLENGER

A CHALLENGING FACT—Many new car dealers have installed Lasco MOUNTAIN MASTER Brake Lining before delivering new cars to customers! They, like thousands of owners, are LEARNING FAST that there is no brake lining in the world like MOUNTAIN MASTER! Lasco MOUNTAIN MASTER is the favorite of race car drivers, transportation companies, rough, grueling logging operators and car dealers all over America to lick tough brake jobs.

WE INVITE CHALLENGE TO THESE STATEMENTS!

No other brake material made in America today gives such phenomenal service that it can be guaranteed 3 full years in passenger car use, and needing only about one adjustment a year.



ORDER NOW...

LASCO
BRAKE PRODUCTS
CORP., LTD.

Subsidiary of
LAHR SPRING AND TIRE CORPORATION

DALLAS: 2615 MAGNOLIA ST. • MEMPHIS: 300 MADISON AVE.
ST. LOUIS: 2230 LOCUST ST. • PITTSBURGH: 5515 Penn. Ave. • KANSAS CITY: 1515 MCGEE ST.
LOS ANGELES: 807 8th St. • FORT WORTH: 910 Florence St. • SAN FRANCISCO: 14 12th St.
SALT LAKE CITY: 541 So. State St. • SEATTLE: 714 E. Pike St. • PORTLAND: N.W. 15th & Davis
SPOKANE: 1319 W. Second Ave. • SACRAMENTO: 1217 10th St.

SHOE EXCHANGE: Lasco passenger car shoe exchanges are available in bonded or riveted sets using same supreme quality lining in two grades, MOUNTAIN MASTER and Lasco BLUE LABEL. Both made by Lasco—when you order LASCO you get LASCO—no substitutes. TRY IT—DEMAND IT—it will make you friends and money!



NEW BEST SELLERS FOR YOU

MoPar MUFFLERS



The all-new MoPar Sono 4-X Muffler is making additional sales and profits for service outlets everywhere because:

This MoPar muffler gives you:

- **Higher profit** by reducing installation time—gives you more time for additional business.
- **Reduced inventory** by standardization of models—saves you storage space.
- **Chrysler-engineered performance**—assures perfect operation with other parts.
- Reduces investment by reducing inventory.

This MoPar muffler gives your customers:

- Up to 100% longer muffler life—it's zinc coated inside and outside.
- Measurably quieter operation—bigger tubes, less back pressure.
- A new muffler that's engineered for their Chrysler Corporation-built cars—to help maintain new car performance.

For quick service on muffler orders—or the complete "bumper to bumper" line of MoPar profit-makers—call your local MoPar Wholesaler or Plymouth, Dodge, De Soto, Chrysler or Imperial Dealer.

Sell the line that keeps your customers sold on you—MoPar



READY NOW!

MoPar's new "Replacement Parts and Service Guide." 100 pages filled with profit-making tips and timesaving information on how to repair and service 1946-1959 Chrysler Corporation vehicles. Get your free copy from your local MoPar Wholesaler today!



FROM THE MAKERS
OF CD-2

NEW PROFIT BUILDERS FOR YOU!

NEW ALEMITE KLEEN TREET

—Now for only 95¢ retail, you can sell America's finest and best-advertised carburetor cleaner at a competitive low price! New Kleen Treet cleans out dirty carburetors and fuel lines... gives instant starts, faster pick-up, new-car performance. Every service customer is a prospect!

NEW ALEMITE HI-PO—Backed by the makers of famous Alemite CD-2... there's nothing else on the market like this new fluid additive concentrate for automatic transmissions. Cleans transmission... guards against leaks... restores transmission to original efficiency. Only \$1.95, retail.

ALEMITE POWER-PAK—Multiply sales... earn twin profits... with Alemite's combination package! Contains a can of Alemite CD-2, America's Number One oil additive, plus New Kleen Treet. A natural for regular CD-2 customers—a buy for any car-owner at a special low retail price of \$2.45 (regular price, \$2.64).

ALEMITE MIRACLE-WHITE—A white, waterproof, non-staining grease for general utility use on cars, boats and appliances. Automotive applications include brake cables, parking brake, hood latch, door hinges and latches. Twelve 8-oz. tubes in self-selling display carton. Only \$1.25, retail price.

Best-Advertised Additives, Too!

Alemite helps you sell with the biggest network radio campaign in chemical history! Ask your jobber for details.

Order from Your Jobber Today—and get complete information on Alemite's Jackpot of Sales Bonus Gifts!

Circle 356 on Inquiry Card, facing 3rd Cover



ALEMITE
DIVISION
STEWART-WARNER
CORPORATION

Dept. BW-49, 1826 Diversey Parkway, Chicago 14, Illinois

Chilton's MOTOR AGE • April 1959





Take my word for it...

... Pedrick Formflex Chrome Piston Rings are tops for *every* job. These rings are really tough . . . will deliver premium performance and long life for my most exacting customers. And for my budget-minded customers, Pedrick also makes a darned good economy ring set. Either way, I never have to worry—I can always be sure of doing the job right with Pedrick. See your Pedrick jobber.

WILKENING MANUFACTURING Co., Philadelphia 42, Pa. In Canada: Wilkening Manufacturing Co. (Canada), Ltd., Toronto 2.

DEPEND ON

Pedrick

FOR THE RIGHT RING JOB

mister

jobber executive

MOTOR AGE: JOBBER EXECUTIVE EDITION

AWDA Admits Five New Members

THE FOLLOWING MANUFACTURERS were admitted to affiliate membership in The Automotive Warehouse Distributors Assn., Inc. They are: Sealed Power Corporation, United Engine & Machine Company, Clifford Mfg. Div. Standard Thomson Corp., Walker Marketing Corporation and Tabs, Inc., Tenn.

The annual AWDA manufacturer-distributor conference will be held from November 2 to November 5 at the Muehlebach Hotel in Kansas City.

Threat Of National Sales Tax Serious

CONGRESS, SOME DAY, will have to enact national sales tax to cover defense spending, forecasts Joel Barlow, Washington tax attorney.... He advises the U.S. Chamber of Commerce on taxes.

No real revenue would be gained by raising income taxes.... Sales tax is the one remaining untapped revenue source, Mr. Barlow believes.

Successful Pacific Automotive Show Held

ELEVENTH ANNUAL PACIFIC AUTOMOTIVE SHOW was held in San Francisco in March. California Automotive Wholesalers' Assn. reported widespread satisfaction of all parties with the excellent jobber and trade attendance from throughout the Western States, including Hawaii.

Federal Reserve Board Worried About Inflation

BUSINESS BORROWING may carry a higher price tag.... Federal Reserve Banks have raised their discount rates.... Often next move is a climb in interest charged by local banks.

Federal Reserve Board prefers to keep interest rates up.... Even with 4.7 million jobless, the Board worries about inflation.... It would like to prevent consumers from spending too much.

Automotive Battery Shipments

ACCORDING TO THE PRELIMINARY ESTIMATE of Association of American Battery Manufacturers, 2,666,400 replacement batteries were shipped in January 1959 to jobbers, dealers, mail order houses and chain stores. Shipments in January 1958 were 2,004,000.

OPERATION **JOBBER**

Stepping up Sales with Better Store and Showroom Appearance

ONE of the most reliable ways to keep sales moving steadily upward is to have a store that is appealing to your customers. Your building, windows and showroom floor are among your most important selling assets. They deserve careful planning; they need regular attention. No longer can the jobber's store be a collection of shelves, counters and haphazard traffic lanes. Nor can merchandise be stored and displayed without regard to popularity, "customer traffic," or convenience. Retail associations and chain store studies have already proved different. These surveys show that store arrangement, merchandise location and well placed displays, have a definite bearing on sales.

Your Customer's "Highway"

To give yourself a customer's "eye view" of your store, walk up to your store carefully. Note the impression your windows give. As you walk inside, study the normal path of traffic to the most important part of your store, the buying counter. This is your customer's "highway." The products whose potentials are the greatest should be displayed near here. Did your window areas have attractive displays that could be seen through clean windows?

Remember your windows are "preferred positions" like the front covers on magazines. They should attract your customer. They suggest new or old products your customers may be interested in purchasing. Along the customer "highway," there should be attractive displays of key lines. For example: electrical products, engine parts, exhaust system products, brake service units and any seasonable merchandise. These are the products that usually sell in greatest volume. For this reason they should be emphasized.

Many jobbers have been able to greatly increase sales by using "open table" or island displays. Here are found low unit, pick-up-type, frequently purchased items. Here again, aggressive jobbers are following the trend established by chain and hardware stores. These latter learned long ago the importance of the old adage "goods well-displayed are half-sold." This idea is also in keeping with the growing popularity of self-service stores. Here customers are allowed to wander around to find those products that fit individual needs and desires.

Attractive Stores Pay Off

A store should be attractive and above all convenient for your customers. Housewives go to unending trouble and expense to make their homes attractive. They want friends to say a good word about their homes. And, they want their friends to come back again. So it is with a jobber's store. Customers must enjoy visiting a store and have the urge to come back again and again.

To determine just how important store appearance really is both inside and out, take a good look at car agencies, service stations, chain stores. Note how strict they are about appearance, displays and showmanship in their stores.

Here are a few rules or check lists:

Keep your store painted and clean inside and out.

Regularly change your window displays—at least every two weeks. Feature key lines.

Arrange related items into "package" floor displays whenever possible.

Check store lighting to make sure properly displayed merchandise can be easily seen. Good lighting improves workmanship, attracts more customers.

*signs
of the
times . . .*



New Officers of Automotive Service Industry Association: (Left to Right) Victor L. Toft, Sidles Company, Omaha, Nebraska—President; Les A. Thayer, Belden Manufacturing Company, Chicago, Illinois—First Vice President; J. A. Bryant, Motor & Electric Supply Co., Inc., Bowling Green, Kentucky—Second Vice President; and Gene P. Robers, Carter Carburetor Division, ACF Industries, Inc., St. Louis, Missouri—Third Vice President.



In a series of meetings held in various sections of the country, the Wagner Automotive service sales organization is making plans to implement its brake service educational activities. This photograph was taken at the regional meeting at Memphis, attended by branch managers and salesmen from the South and sales officials from main offices in St. Louis. Meetings for Western branch office personnel were held at San Francisco; the Eastern meeting was at New York, and the Midwestern meeting at Chicago.

Grey-Rock Offers Special Race Film

Grey-Rock Division, Raybestos-Manhattan, Inc., is currently offering to "service clubs" a motion picture featuring the 9th Annual "Southern 500" NASCAR race at Darlington, S.C.

In color, with on-the-spot authentic sound, the 16 mm film has a running time of approximately 15 minutes. The "Southern 500" has long been regarded as the "World Series of Stock Car Races," and the 9th Annual was no exception—where a new track record of more than 102 mph was set.

The "Southern 500" film was produced under the sanction and supervision of NASCAR—National Association for Stock Car Racing. It is presented as a public service by Grey-Rock. The film is available on a "first come-first served" basis reports Grey-Rock. It is free to all club, social and civic groups on request to Grey-Rock Film Library, Distribution Dynamics, 405 Park Ave., New York 22, N.Y.

C. M. Hall Adding Plating Equipment

The C. M. Hall Lamp Co. is equipping its plant at Clinton, N.C., with a modern electroplating installation. The new facility is aimed at enabling the firm to expand its production of automotive parts and aftermarket accessories.

The installation will consist of two double-lane, fully-automatic return-type plating machines for copper, duplex-nickel and high-temperature chrome. It will have direct-current amperage. Voltage will be capable of plating 25 sq. ft. per carrier arm.



Concluding arrangements for manufacture of Auto-Lite Spark Plugs in South America were made recently when Dr. W. W. Clemente (standing), President-Director of Walita-Auto-Pecas, Sao Paulo, Brazil was in Toledo. Finalizing agreement with Dr. Clemente, whose firm also produces other electrical products of The Electric Auto-Lite Company in South America, is Auto-Lite Spark Plug Group Vice President, Robert Twells (seated).

Thermoid Plans Poster Campaign

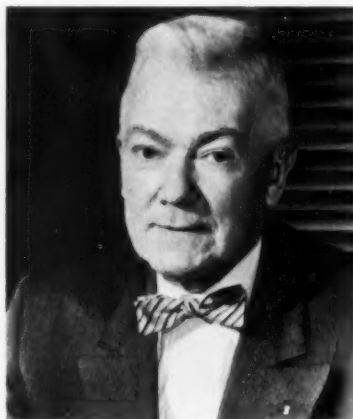
Thermoid Division, H. K. Porter Company, Inc., has announced plans for a test program of outdoor poster advertising. The program will feature the firm's brake linings, fan belts and hose. It is scheduled for the Spring and Fall seasons in order to take advantage of the seasonal interest in these products.

Cities selected for the first campaign include Dallas, San Francisco, Philadelphia and Pittsburgh. Full color, cartoon type posters will tie-in with such seasonal interests as summer vacation trips or back-to-school days in the Fall. Each poster will emphasize safety, protection and carefree driving.

The names of Thermoid automotive jobbers will be featured on those billboards which are located in the jobbers' trading area.

J. R. Alexander, Vice Presi-

dent, Marketing at Thermoid, stated: "We feel that outdoor posters are ideal for the promotion of automotive replacement products because they are seen by motorists while they are at the wheels of their cars."



John E. Rooney has retired recently after 36 years of continuous service with Erwin Wasey, Ruthrauff & Ryan, Inc., and two of its predecessor agencies—George W. Edwards and Company and Geare-Marston, Inc., both of Phila.

Arvin Industries Enters New Fields

Arvin Industries, Inc., reports president G. W. Thompson, will expand its activities by entering two new fields. About July 1 the firm will begin supplying replacement automobile exhaust systems and components through conventional trade channels to the motoring public. At the same time it will begin marketing primary electric heating devices for resident, office, commercial, and industrial use.

Tooling is all but completed. Some products already have been manufactured in each category, Thompson said. "Sales organizations are being set up and distribution channels established."

New Ownership

Panama Motor Parts Co. of Panama City, Florida, has announced a change of ownership. New owners are James H. Osborne, T. M. Chance, and Phil D. Hutchison. All three were employed by Panama Motor Parts prior to the sale.



Picture above shows model Grete Roland demonstrating the Maremont Muffler Div.'s "Acid Test for Mufflers" at the International ASI Show held recently in Chicago.

Gary F. Davis

Gary F. Davis, sales manager for Ernest Holmes Co., died March 11. Mr. Davis had been hospitalized in Chicago where he had taken ill during his visit to that city to attend the International Automotive Service Industry Show. Born in Atlanta, Ga., Mr. Davis left the South in 1931 to enter the sales department of a New York automotive firm. In 1945, Mr. Davis became associated with the Ernest Holmes Co. as eastern field representative.

Aro Making Use Of Display Van

The Aro Equipment Corporation, Bryan, Ohio, is spearheading its 1959 lube equipment sales program with a new Mobile Display Unit. It is named the M-D.

The M-D is a custom-built van fitted with basic Aro equipment recommended for a modern lubrication department. A built-in generator and compressor allows this equipment to be operated instantly, without need of an outside power source.

Aro believes that the M-D overcomes many of the problems involved in field sales meetings and demonstrations. Conventional field demonstrations, says Aro, usually require elaborate preparation. A room must be located and then supplied with mounting facilities and a compressor. The lube equipment itself must then be trucked to the location, carried into the building and carefully installed.

Ready Anywhere

By contrast, Aro points out, the M-D is ready for demonstration anywhere, whether in a parking lot or alongside the curb. The interior of the van is 12 ft.



Members of the Industry-Wide Committee for Removal of Discriminatory Automotive Excise Tax who conferred with Government officials at a Washington Conference on Feb. 26 are: seated, left to right; William G. Welden, Harold T. Halfpenny, John P. Porteous, Darrell D. Randolph. Standing, left to right: Robert E. Phelps, Richard Hahn, James Ledbetter, Jr., J. Austin Latimer, Lee Romine, Don Westling. Absent from photo was Ira Saks, Chairman.

long and 6 ft. 4 in. high. It will accommodate 6 men comfortably. Weather is no problem, since the M-D carries its own climate in

an air conditioner and heater. An electric refrigerator and coffee maker allow refreshments to be served.



Automotive parts distributors and jobbers throughout the United States participated in simultaneous closed circuit radio sales meetings sponsored by Walker "Silencers" on March 5th. Purpose of the meetings was to inform the distributive trade throughout the country of Walker Marketing Corporation's sponsorship of the "Bob and Ray" segments of the weekend "Monitor." The program included talks by T. Faxon Hall, Vice President, and Wayne Rapp, Vice President, of Walker Marketing Corp. Pictured is the group of automotive distributors assembled at WRCV, Philadelphia, to participate in the sales meeting broadcast. Similar groups gathered at NBC broadcast stations all over the country.



When cooling system repairmen from all parts of the United States and Canada gather in Phila. May 1-3 to attend the National Automotive Radiator Service Association convention & trade show, they will be greeted by lovely Maribelle Whetstone, Miss NARSA of 1959.

AC Introduces New Air Cleaner Tester

A dry-type air cleaner can be quickly tested—to see whether it is clogged and causing poor gasoline economy—in a new device announced by AC Spark Plug Division of General Motors.

The tester can easily be adjusted to compare a new air cleaner with the used one taken from the car, AC officials explained.

The tester actually measures the air flow through the cleaner. This depends on the amount of dirt concentrated on the cleaner's surface. The degree of clogging is shown by the height to which the air flow causes a ping-pong ball to rise in a plastic column.



John Bury, Sales Manager, Jobber Division, Purolator Products, Inc., Carl Schnippel, Los Angeles Sales Representative, John Fort, Indianapolis Sales Representative, James B. Lightburn, General Sales Manager and Tim McCarthy, Philadelphia Sales Representative, meet at the Purolator booth at the International Automotive Service Industries convention in Chicago. Mr. Lightburn and Mr. Bury, honored M. Schnippel for twenty years service with the firm, and Mr. McCarthy and Mr. Fort for ten years service.

New Service Branch For Black & Decker

The Black & Decker Mfg. Co. announced the opening recently of a new factory service branch in New York City. The new

branch will supplement the service facilities of the company's present factory sales & service branch at Woodside, N.Y.

Dan E. Calabrese has been appointed assistant branch service manager of the firm's new Manhattan branch.



Actual red carpet from a major airline was used at annual Red Carpet Dinner given for seventy-five local Providence automotive parts jobbers by the New England Wheel and Rim Company and the Monroe Auto Equipment Company. The Monroe Auto Equipment Company's shock absorber sales program for 1959 was presented by Sales Manager W. E. Nash.

Industry Meetings

Apr. 18-19—Ohio Automotive Wholesalers Association convention, Neil House, Columbus.

May 1-3—National Automotive Radiator Service Assn. convention and trade show; Sheraton Hotel, Philadelphia.

May 4-6—American Petroleum Institute, Div. of Marketing, Lubrication Committee meeting, San Marcos Hotel, Chandler, Ariz.

May 17-19—6th Annual Convention of the Automotive Wholesalers Association of Tennessee, Castle in the Clouds Hotel, Chattanooga, Tennessee.

May 17-20—Automotive Engine Rebuilders Assn. convention, Royal York Hotel, Toronto, Ontario.

May 27-29—American Petroleum Institute, Div. of Marketing, midyear meeting, The Savery, Des Moines.

June 14-19—SAE Summer Meeting, Chalfonte-Haddon Hall, Atlantic City, New Jersey.

June 24-27—The National IGOA Convention, Denver Albany Hotel, Denver, Colorado.

Sept. 27-29—Southeastern Marketing Association; first convention, Biltmore Hotel, Atlanta.

Oct. 28-30—SAE National Fuels and Lubricants Meeting, La Salle Hotel, Chicago.

Oct. 28-30—Automotive Parts Rebuilders Association convention and trade show, Hotel Roosevelt, New Orleans.

Nov. 2-5—The Automotive Warehouse Distributors Association, Inc., annual convention, Muehlebach Hotel, Kansas City, Missouri.

Jan. 16-24, 1960—Chicago Automobile Show; International Amphitheater, Chicago.



The new officers of Standard Motor Products, Inc. who began their tenure of office in 1959—the 40th anniversary of the firm. From left to right: Bernard Fife, president & treasurer; Elias Fife, chairman of the Board; Nathaniel Sills, vice president and secretary.

Automotive Wholesalers' Sales and Inventories

Data from Bureau of Census, Department of Commerce

Region	Per Cent Change			
	Sales		Inventories	
	Jan. 1959 from Jan. 1958	Jan. 1959 from Dec. 1958	Jan. 1959 from Jan. 1958	Jan. 1959 from Dec. 1958
New England.....	+2	...	-11	+2
Middle Atlantic.....	-1	-16	+20	+6
East North Central.....	-3	-26	0	+1
West North Central.....	+18	-7	+11	+4
South Atlantic.....	+11	-2	+10	0
East South Central.....	+18	+5	+12	0
West South Central.....	+10	+10	+12	+5
Mountain.....	+7	+7	+9	+12
Pacific.....	+25	0	+5	0
United States.....	+1	-10	+8	+4

Indicators of Business Activity

These figures are based on latest thirty-day reports

	Latest Data	Month Before	Year Ago	Percentage Change from—	
				Month Ago	Year Ago
PRODUCTION					
Motor Vehicles (Units).....	579,415	644,810	572,647	-10.2	+1.2
Industrial—F. R. B. 1947-'49 = 100 (Adj.)...	143	142	133	+0.7	+7.5
SALES					
New Cars.....	415,000	419,512	333,580	-1.1	+24.4
Replacement Tires (Units).....	6,741,747	4,711,481	5,511,314	+43.1	+22.3
Manufacturers (\$ Millions)					
Durable Goods.....	\$13,686	\$13,613	\$12,646	+0.5	+8.2
Non-durable Goods.....	\$14,528	\$14,522	\$13,704	None	+6.0
Department Stores, 1947-'49 = 100.....	137	144	130	-4.9	+5.4
GENERAL					
Consumers' Price Index, 1947-'49 = 100...	123.8	123.7	122.3	None	+1.2
Civilian Employment.....	62,723,000	62,706,000	61,988,000	None	+1.2
Unemployment.....	4,749,000	4,724,000	5,173,000	+0.5	-8.2

Motor Age's Who's Who

D. R. Stone has been named district manager for the newly formed southern district for the Carter Carburetor division of ACF Industries, Incorporated.



ACF Industries, Incorporated.

L. V. Martikonis has been appointed to the newly created post of sales promotion manager of Carter Carburetor division,

AC Spark Plug Division of General Motors appointed the following merchandising managers: **E. D. Garland**, for spark plugs; **Robert E. Sundwick**, for oil filters and **George E. Kaad** for fuel pumps. **William R. Reynolds** was appointed coordinator of specialized marketing. **Arthur P. Hand** was advanced to coordinator of market research.

Appointment of representatives for Lee Mfg. Co. has been announced. They are: **Sam Steele**, Detroit, Michigan, for the State of Michigan, **Stanley Tull Co.**, Minneapolis, for Minnesota and North and South Dakota.

Joseph N. Kuzmick has been appointed divisional manager for Raybestos-Manhattan, Inc. He previously was co-ordinator of corporation research and development activities.



diana. He joined the Bendix organization in 1955.

Ralph G. Caouette has been appointed general manager of the automotive section of Bendix Products Division at South Bend, Indiana.

John Somers has joined World Bestos to serve in a special capacity in the friction materials field.

Rocco R. Reale has been appointed manufacturing manager of the Industrial Electronics Division, Allen B. Du Mont Laboratories, Inc.

John G. (Jerry) Petry has been promoted midwest division manager for The Joyce-Cridland Company. **Walter S. Bowers** has been appointed eastern division manager on the sale of automotive lifts.

D. E. Gordon has been appointed manager of the Central Region of the Dayton Rubber Company's automotive wholesalers division.



Norman E. Schmidt, left, has been appointed Wisconsin district representative (district manager) of The Electric Auto-Lite Company's Electrical Products Group. **Jerome Sylvan** was appointed Eastern district representative.



Edward J. Brandl, left, has been named director of fleet and industrial sales of AC Spark Plug Division of GM. **Harold L. Wardrop**, right, has been appointed merchandising control manager. **John A. Fellows** has become coordinator of advertising and sales promotion for the company.



George H. Finlay has been appointed San Francisco zone manager for United Motors Service division of General Motors.

New representatives have been announced for Ammeo Tools, Inc. They are: **Lewis Watson**, working with regional manager Roy Culp covering southern Texas and Louisiana. **Tom McGuire**, is covering Indiana and regional manager Ken Wood and **Jim Von Eschen** is covering northern California with district representative Roy Wasley.

George Mackey, photo, and **E. N. (Elwood) Moon** have been appointed special assistants to the director of sales for Clayton Manufacturing Company's dynamometer division. Mackey will concentrate on truck, tractor, bus and industrial fields. Moon will concentrate on the passenger car field-car dealers, service stations and repair shops.



Neil Uptegrove has been appointed manager of advertising and sales promotion of Tung-Sol Electric Inc.

New assignments have been announced at the Delco-Remy Division, General Motors Corp. They include: **Perry W. House** as manufacturing manager of Anderson plants reporting to H. G. Riggs, works manager; **John D. Baker** as assistant chief engineer succeeding House; **Forrest A. Stinson** as assistant general sales manager for original equipment succeeding Baker; **R. C. Robertson** as chief production engineer, a new post reporting also to the works manager; **John R. Mail** has been appointed as Detroit regional sales manager succeeding Stinson.

William E. "Bill" Jakes has been promoted to regional manager for Perfect Circle Corporation's southeastern U.S. region. As regional manager he will have his headquarters in Atlanta, Georgia.



Jack L. Ward has been appointed territory manager for the distributor sales division of Blackhawk Mfg. Co.

MOTOR AGE

newscoop

*New Car Sales
Reckless Drivers' List
Steel Strike Looms
Swivel Seats Popular
Names For Small Cars
Speculation On Edsels
GM's Aluminum Engine*

In the days ahead HERE'S WHAT TO LOOK FOR !!!

(Items gathered and edited by Ed Janicki, Ray Stroupe and Bill Montgomery)

How Are New Cars Selling?

ALTHOUGH AUTO SALES STARTED THE YEAR OFF at a healthy clip, there's some doubt being expressed that year's total may not reach earlier expectations.... Many feel that the widespread publicity being given to upcoming small cars, plus a possible steel strike, could adversely affect sales this year.

First two months were highly encouraging, with car sales, surprisingly, topping 1955 record.... There were more than 920,000 cars sold during two months (including imports) compared with 916,000 during comparable 1955 period.... But despite this high rate, auto company economists now feel that earlier forecasts of between 5.5 million and 6 million were perhaps a bit optimistic.... They say 5 million appears like a more realistic figure for car sales this year—still better than 1958.

For first time in many many months, press releases from car companies, pointing up higher sales, are beginning to flow through in reams. As of early last month here's how the picture looked: Imperial sales, up 40 per cent; Studebaker-Packard, 19 per cent; Pontiac, 52 per cent; Ford, 56 per cent; Olds, 15 per cent; Cadillac, 16 per cent; Mercury, 21 per cent; Rambler, 148 per cent.

Bill To List Drivers With Revoked Licenses

CLOSER CHECK MAY BE KEPT ON DRIVERS with revoked licenses.... Rep. Rhodes, R., Ariz., backs H. R. 5436, a bill to list those drivers' names in a U.S. Commerce Dept. register.... List could be studied by any state when persons apply for licenses.

Commerce Dept. also comes out for this central listing.... Under the name of a Driver Records Clearance Center.

No Let-Up In Counterfeiting

SECRET SERVICE AGENTS reveal attempts to pass more fake currency and coins.... They have seized or recovered about \$1.8 million in phony money since last July 1.

Worst previous year was 1951, when \$1.4 million in bogus money was seized.... This increase may be related to the swelling of all kinds of criminal activity.

New Threat Looms For Auto Makers

THERE IS A THREAT OF A POSSIBLE STEEL STRIKE next summer.... Could hamper auto production drastically if prolonged. Steel workers' three-year contract expires on June 30.... Pressure is on for another large package, including wage increase and other sundry benefits.

If a strike hits, some 85 per cent of the nation's steel supply will be choked off.... Anticipating long strike, car companies and suppliers are rushing to build up their steel inventories.

Swivel Seats Becoming Popular

SWIVEL SEATS, INTRODUCED BY CHRYSLER CORP. on its 1959 cars, will be offered by at least one more company next year.... Chrysler's success with novel seats is illustrated in reports which show that nearly 50 per cent of its cars are being equipped with them.

Hassle Over Identical Names For Small Cars

WHILE IT IS NOT A NEW INCIDENT to U.S. Patent Office people, it has happened again.... Two automobile companies have selected identical names for their upcoming small cars, and there is now a hassle as to which one is rightly entitled to use it.... Both are claiming legality to use of name (not an original one, incidentally), although only one of them has actually gone ahead and filed an application with the Patent Office.... Who will win the decision is not known at this time.



Name is not original in that it is currently used on products of at least three companies, including a bicycle manufacturer, a major airline and a motor truck builder.... At least a dozen now-defunct automotive companies have used name, and there was a recent "dream car" by that name. Can you name the car?

Unique Four-Barrel Carburetor System Offered

UNIQUE FOUR-BARREL CARBURETION package will be offered by one car company next on its V-8 models.... System consists of two four-barrel carbs mounted at an angle on either side of engine over cylinder head covers.... This is opposed to conventional method of mounting carbs on intake manifold.... Advantage claimed for the new system is better acceleration at cruising speeds.

"Watch Dog" Policy Improves Quality In Assembly Plants

CHRYSLER CORP. HAS MADE CONSIDERABLE PROGRESS in its efforts to improve quality in its assembly plants.... It's the result of a new stringent policy which gives quality control department "watch dogs" authority to completely shut down a plant should a selected number of cars fail to meet new inspection standards.

The standards include a tougher "de-merit" system.... Under new procedures, a select number of cars, pulled off the assembly line, are gone over with a fine-tooth comb to see if workmanship and components from suppliers are up to par.... Cars with six visible defects, or those which a buyer ordinarily would complain about, are rejected.

More People Planning On Buying New Cars

NEW-CAR BUYING INTENTIONS are up this year, compared to 1958.... And would-be buyers are willing to pay more for their new cars.... As Federal Reserve Board learns in a sampling of consumer finances.

Four out of ten persons asked are earning more than they did early in 1958.... New-car buying is planned by 7.6 per cent.... At prices with a midpoint of \$3,030 per car.

Some Car Makers Plan To Go Back To 15-Inch Wheels

SEVERAL CAR MAKERS, WHICH ADOPTED 14-INCH WHEELS with rest of industry in 1957, plan to switch back to the 15-inch jobs.... Among them are Imperial, currently making a running change to the larger wheel to provide better cooling for brakes.... Lincoln also reportedly is considering going back to the 15-inch jobs, as well as Chrysler and De Soto.

Bill To Bar Auto Producers From New Car Financing Opposed

BILLS IN SENATE (S. 838 and 839) to bar auto producers from new-car financing are unlikely to get very far.... Franchised dealers have told Congress they oppose bills.... Spokesmen for NADA objected to singling out auto industry for reform.

Big Three automakers also have stated their objections to S.838 and 839.... Public hearings on bills may go on again this month.

Speculation On Fate Of The Edsel

MOST INTERESTING TOPIC DISCUSSED around Detroit these days, next to small cars, is ultimate fate of the Edsel automobile.... Recent official statements by Henry Ford II that Edsel will "remain a permanent member of the Ford family of cars" have failed to appease speculators.... Many of these had placed a tombstone over car a long time ago.... More cautious speculators argue the other way, on simple grounds that the company would lose face if it did discontinue the Edsel.



Both arguments are right, depending on how you look at the situation.... It is generally agreed that there will be a 1960 Edsel.... What happens beyond that is another thing.... According to best informed sources, the Edsel, as it is known today and its original concept, will die in 1961.... In its place will emerge Ford's planned second small car (the much-discussed 114-inch wheelbase car).... It will be called the Edsel.... So it's a borderline argument.... The name will be retained, but the package will be completely different from the original Edsel concept.... The Big Edsel will phase out, the Small Edsel will phase in.

Huge Service Promotion Program Planned By GM

GENERAL MOTORS HAS BUDGETED a sizeable outlay for a huge service promotion program, to be kicked off nationally between April 15 and May 1. Direct mail and newspaper ads will urge owners to "bring your car back to your dealer if not completely satisfied." Promotion called "Guardian Maintenance" is patterned after one tried out by Cadillac back in 1949.

AM Announces Latest Development

LATEST DEVELOPMENT IN ELIMINATION OF GREASE FITTINGS comes from American Motors.... Company announces that new steering linkage ball joints with nylon bushings, which require no lubrication, will be installed as a running change on Rebel V-8 models; made standard on all models in 1960.... Bearing is sealed permanently with a specially-molded rubber, provides constant friction.... First of its type in the auto industry, the bearing will be adopted by Big Three makers in 1960.

Merger Of M-E-L Division With Ford Just A Rumor

RUMORS THAT M-E-L DIVISION WILL BE MERGED with Ford Division if former does not show a profit soon are taken lightly. While such a move has long been discussed in automotive circles, there are definitely no plans in that direction at moment.... Both Edsel and Lincoln have been operating at a loss for some time.... Mercury, with 3 per cent of the market, is at the break-even point.

Federal Gasoline Tax Increase Opposed

REP. MICHEL, R., ILL., opposes raising federal gasoline tax in order to get roadbuilding money.... His bill, H. R. 4389, would earmark all—not just part—of federal automotive excise taxes for roads.

Bill would steer taxes on cars, trucks, buses, trailers, and parts into highway trust fund.... This would add about \$1.5 billion a year to fund, he reasons.

All-Aluminum Engine To Be Offered By GM

IT APPEARS THAT GENERAL MOTORS will be the only car company offering an all-aluminum engine on the upcoming small cars.... Both Chrysler and Ford have decided against an aluminum powerplant at this time.... They will stick with cast iron for at least another year.

Experience GM has with its new engine next year will be watched closely by two companies. There are many problems yet to overcome, such as finding a suitable material for lining cylinder walls.... Sources say there's a definite possibility that aluminum engines will be offered by most car companies in 1961.

Trend Is Toward Fewer Colors And Combinations

THERE'LL BE FEWER COLORS AND COLOR COMBINATIONS offered on 1960 cars.... Myriad of body hues available has always been a headache to car companies and dealers from a production and inventory standpoint.... Trend toward fewer colors was started last year by Buick, which reduced number of offerings from more than 3000 to only 25 combinations.... Ford next year will offer only 7 colors compared with 13 at present.

Dealer Representatives Discuss Problems

DEALERSHIP REPRESENTATIVES had favorable comments on a two-day sales management meeting at NADA headquarters in March.... Problems discussed: Hiring top-notch salesmen.... Developing new men.... Handling of demonstrator cars.



Motor Age's Shop of the Month

All-around Service star feature of ALASKA Volume Shop

*Eighteen years in Alaska, Gene
Immel has built a solid business
on foresight, skill & equipment*



ALASKA is the setting of this month's Motor Age "Shop of the Month." The city is Fairbanks and the place—Gene's Auto Service. Located on a busy corner of First and Barnett Sts., Gene's Auto Service is owned and managed by Gene Immel. Mr. Immel has lived in Alaska eighteen years. Fourteen of these years has been spent in the

service station business and operations.

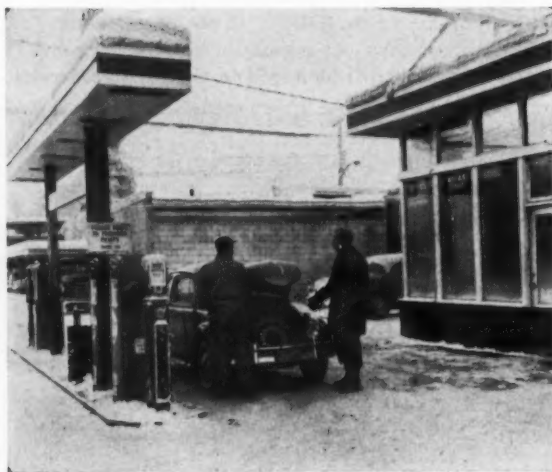
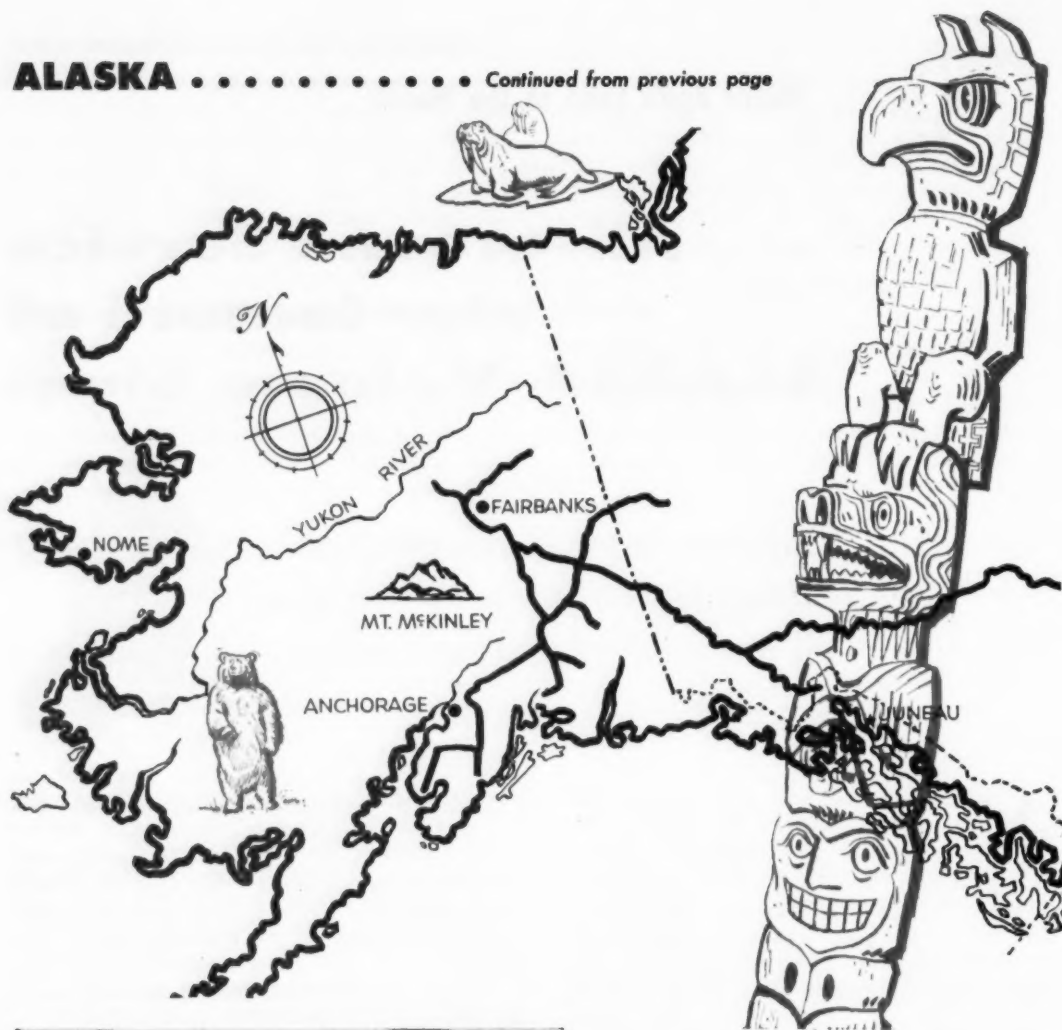
In 1956, he expanded the service station into a modern and well organized service and repair operation. Most every type of vehicle can be serviced at the station or at the larger garage, located at the opposite end of the block.

(Continued on next page)

In planned expansion move, new concrete building will be added to Gene's Auto Service.

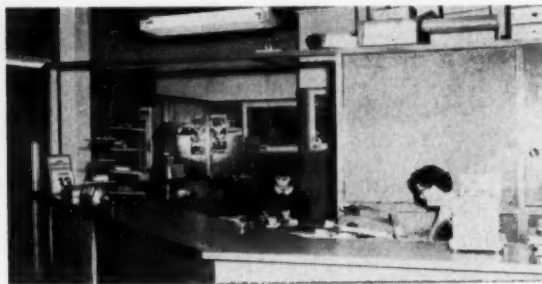


ALASKA Continued from previous page



It was 20 degrees below zero when one of the regular customers pulled into station for gas.

Two women handle the office duties and book-keeping in office located in garage building.



In connection with his service station and garage, Gene's Auto service maintains a complete stock of parts. The personnel who have charge of this department have a thorough knowledge of their work and serve their customers well.

To many people, knowledge of the 49th state is limited. To many more it seems unlikely that people in this northland would enjoy a great deal of driving. It is true that roads are few and distances great. There are only 1,097 miles of paved roads in Alaska and 3,000 miles unpaved. In a state that is 586,400 square miles in area this means that one mile of road exists for every 143 square miles.

Plenty of Shop Room

Preventive maintenance and overhaul then become vital factors to Alaskan drivers. This is one reason why the garage and repair shop of Gene's Service is a busy place all year around. Equipment here is sufficient for complete automotive servicing on any make of car. Complete engine overhaul, body rebuilding and painting is undertaken. There is hardly a time when the large garage is empty. The four mechanics on duty handle approximately 300 repair jobs per month.

Spacious quarters make it possible to handle four repair jobs at one time in the

shop area. It goes without saying that during the severe winters the garage is kept going at a high pitch to keep up with the many breakdowns that occur to automobiles. Icy streets and high snow banks cause many a crumpled fender and dented front ends.

These jobs are routine to Gene's Service who has won respect for dependable repair service. Mr. Immel promotes his garage business, stressing this dependable service. Several of his mechanics have been with him for 12 years. In a country where population is considered transient and shifting, this is indeed a credit to the management.

Mr. Immel explained that they specialize in Studebaker repair service since he is the Studebaker dealer in Fairbanks. In fact, he is reported to be the only Studebaker dealer in the entire State of Alaska. He is also dealer for Mercedes-Benz and Volkswagen.

Winter is really cold in Alaska. By mid-November and on into December temperatures begin to dip sharply. Then it can strike, 40 and 50 degrees below zero for three and four weeks without so much as a ten degree rise during the day. It is just good sense for a motorist to treat his automobile with care.

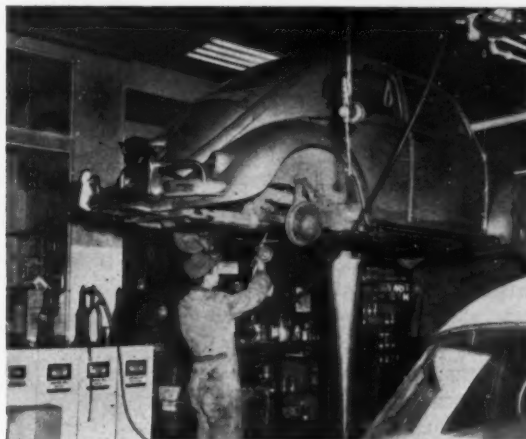
The working man and woman need transportation more than ever in this kind of cold,

(Continued on page 102)

The well arranged parts department and competent personnel insure an adequate inventory.



Two grease racks are in constant use. Note the latest equipment and neatness of department.



IGOA

UNDERTAKES BOTH!

APPRENTICE TRAINING AND JOURNEYMEN CERTIFICATION

*Report on what IGOA is doing to help
solve problem of mechanic training*



Management Story of the Month

IT was my privilege to attend the A.S.I. Show in December 1954, in Chicago. The conditions and circumstances involved, at that time, placed me in an unusual position. Our National Association was in the embryo stage. Six states, who had organized Independent Garagemen's Associations, were in the process of joining together for the purpose of developing our National Organization.

Three days prior to the Show, I received word from our Executive Committee, telling me to come to Chicago for the purpose of telling Parts Jobbers, Replacement Parts Manufacturers and Editors of Trade Publications what we were attempting to do. It was certainly a new experience for this Independent Garage Owner, one that I will never forget.

A few were quite encouraging. Others speculated on the plan, and its possibilities. Many



**By Ralph James, Executive Director
Independent Garage Owners of America**

of the people with whom I talked, laughed at the idea. I must agree IGOA was no more than a dream—shared by Garagemen from six states. So I found myself here in Chicago, telling about a proposed organization, that had no name, no constitution, no by-laws, no written aims or purposes, no membership,

Apprentice Training Standards

Independent Garage Owners of America, Inc.



Independent Garage Owners of America, Inc.

Ralph H. James, Exec. Director

36½ N. Lewis

Tulsa 10, Oklahoma

and no finances with which to accomplish this job.

To those who have helped and encouraged our program, to those who speculated, I bring the thanks of more than 4,000 Garagemen, and their families. I feel that we have proven our worth in these past four years, by show-

ing that a dream can grow and develop. Today, we have an organization, The Independent Garage Owners of America, Inc., with organized units in more than 170 cities, in 32 states of this nation. We have members-at-large in two additional states, plus the terri-

(Continued on page 122)



Merchandising Story of the Month



Exterior view of the front of Jim Peck's shop.

TUNE-UP Specialist's New Ideas for VOLUME

*Top-Notch mechanic strikes out on his own . . .
Sets up thriving service business in less than a year's
time . . . Builds with top equipment*

DYER Automotive Service, is a young concern. This El Paso, Texas, firm is less than a year old. But operates at full capacity.

Jim Peck, owner-operator, until he opened this shop, was a number one tune-up man for a local dealership. Jim opened his own garage to test out several business theories he had

accumulated over the years as a mechanic.

Jim felt that one of the major faults existing in most service shops was the system of having service salesmen write job tickets based on information from the car owner alone.

"Even a seasonal mechanic is unable to diagnose engine trouble today without the



An offer to locate, without obligation, any engine troubles often leads to tune-up jobs.

aid of modern testing equipment. How then," feels Jim, "can the customer himself know what's really faulty with his car?"

Replacement parts promotion gets a good play from Peck. He runs frequent ads in the local papers. Here's a typical response:

In drives a customer in answer to the muffler advertisement. The motorist was surprised that he needed a new muffler on so new a car. He surmised he had blown it out, or it needed tightening up, for it was pretty noisy. The inspection proved that his muffler had rusted out and it needed replacing.

Peck has a \$800.00 minimum muffler in-

(Continued on page 88)



Jim shows a customer a new muffler while mechanic holds up muffler worn and just removed.

Jim gives final rinse to carburetor part he has been overhauling in his 3 compartment-type tank.





Motor Age Mechanical Story of the Month

Replacing 'hard-to-reach' SPARK PLUGS

REMOVING and replacing spark plugs can be a time consuming job on late model overhead engines. Some of these powerplants have spark plugs that are hidden beneath power steering pumps or air conditioner components. With the emphasis by the public more and more on proper gasoline economy, proper functioning of spark plugs—and their replacement immediately when worn or faulty—is essential.

This article is designed to outline some selected tips on replacing the "hard-to-reach" type plugs. Bear in mind, that the proper tools to affect quick and easier spark plug replacement can not be overlooked.

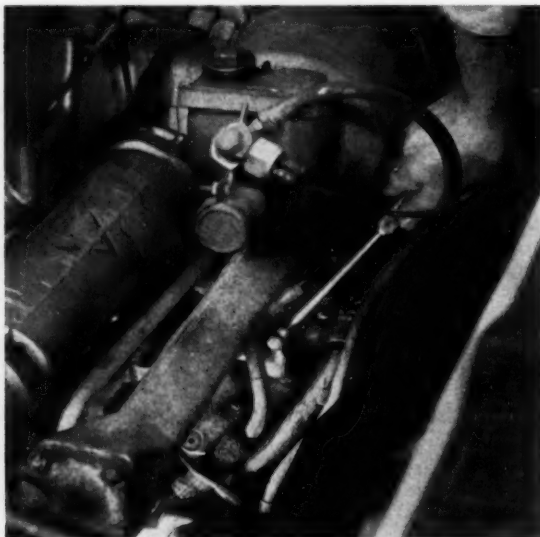
Keep Cables Properly Separated

Buick: Remove spark plug cover plates. Take notice as to the arrangement of the ignition cables. Cables must be properly sep-

Removing plugs from '53-'56 Studebaker V-8's. Air cleaner must be removed in later models.



Removing plugs on '52-'54 Lincolns with power steering. Take air cleaner off on later models.



*Presenting some selected
tips on speeding up removal
of worn and faulty plugs*

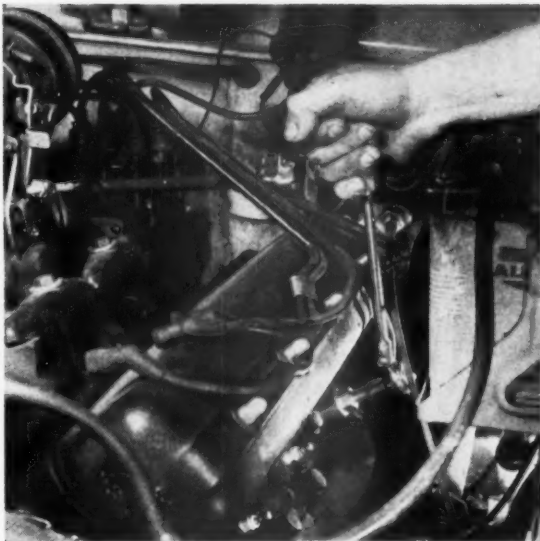
**By John K. Montgomery,
Technical Editor**

arated to avoid cross fire. On right bank cables No. 1 and 3 must not be parallel. Run cable No. 1 over both cover studs, over plug No. 5 and under plug No. 3. On left bank, cables No. 4 and No. 8 must not be parallel. Run cable No. 4 over the rear cover stud.

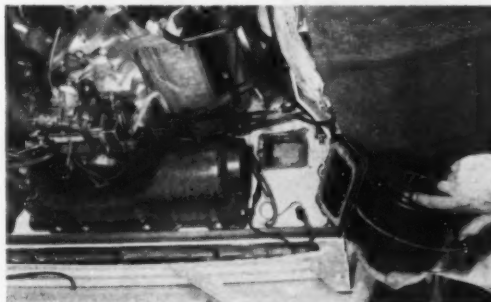
Cadillac and Oldsmobile: Loosen generator and slip off drive belt. Pull generator away from block. To prevent cross firing on Cad-

(Continued on page 120)

Use one-inch extension and special ratchet to remove plugs on 1953-'56 model Studebakers.

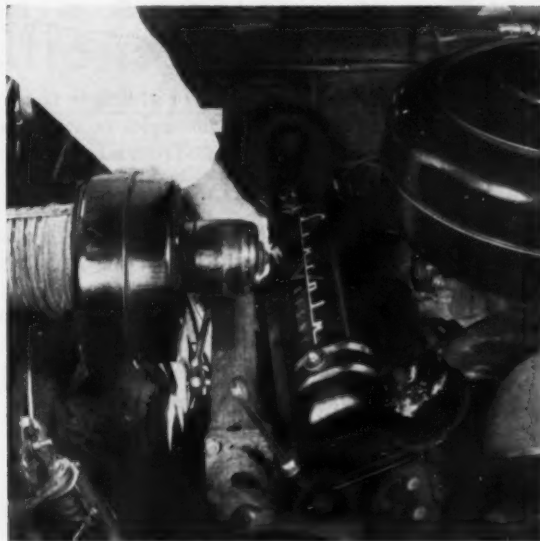


Remove the air cleaner duct on late model Lincolns, Mercurys, Edsels and Continentals.



Heater blower motor & air cleaner must be removed on some late Chrysler and Imperial cars.

Mechanic is shown removing plugs on 1952-56 model Lincoln without taking off heater duct.



CAR and TRUCK

shop kinks

Time and work saving ideas on cars and trucks can pay off. Send Yours In Now!

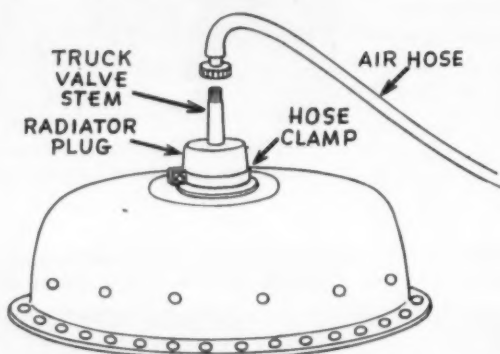
\$25

FOR THE KINK
OF THE MONTH

\$7.50

PAID FOR
EACH KINK

April's Kink of the Month Is Tool To Check Leaks In Transmission



A simple tool for aiding in the checking for leaks in Chevrolet powerglide transmissions can be made from a radiator plug, a hose clamp, and a long metal truck valve stem. Bore a hole in the top of the radiator plug. Put a washer on the valve stem and stick it through the radiator plug and tighten. Slip plug over converter hub and clamp tight with hose clamp. Air pressure can then be forced into the converter from the regular shop air lines or air hose. *Jim Sirmans, Harrison Chevrolet Co., Marianna, Fla.*

Protecting Clothes From Acid On Battery Top

I have a shop kink which would protect clothes from battery acid on late model automobiles. Take an ordinary newspaper and place it over the top of the battery. Then get an old inner tube and cut a strip about $\frac{1}{2}$ an inch wide to make it like a rubber band. Place paper over battery and rubber band will hold the newspaper in place, leaving no way for battery acid to get on clothing while working on the engine. *Bernard E. Diekemper, R. J. Klutho Garage, Beckemeyer, Ill.*

How To Remove Valve Inserts From Heads

I have found an easy way for removing valve inserts from heads. Grinding the head of a discarded valve to the size of the inside of the valve insert. Then electric weld the valve to the insert in about two places. Next, drive the insert and valve out by driving the end of the valve stem with a hammer. This works especially well on large heads. *P. E. Satcher, P. E. Satcher's Garage, Heidelberg, Miss.*
(Continued on page 150)

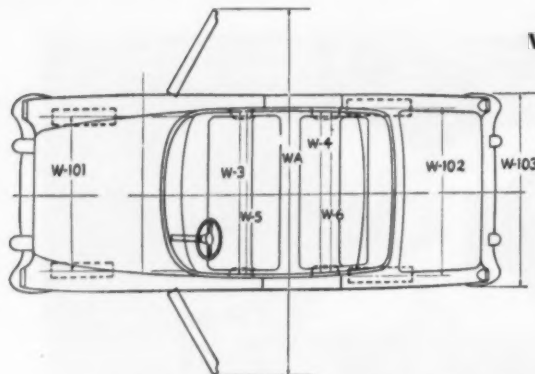


EIGHTH ANNUAL SPECIFICATIONS ISSUE

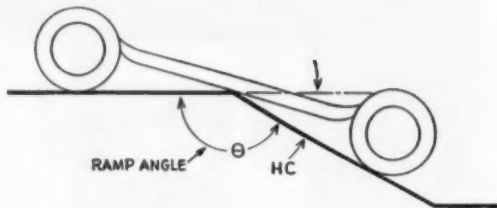
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• U. S. PASSENGER CARS •



WIDTH DIMENSIONS



1959 U. S. PASSENGER CAR BODY DATA

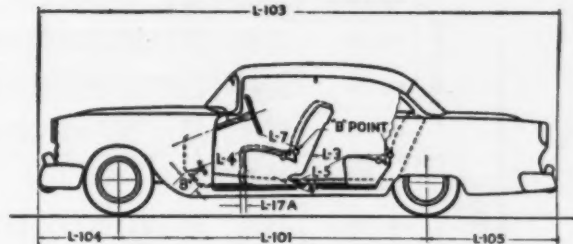
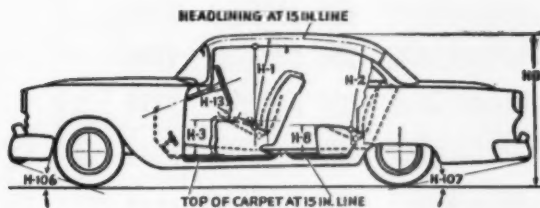
All dimensions apply to 5 or 6 passenger, 4 door sedan or equivalent model.

PASSENGER CAR MAKE AND MODEL		MISCELLANEOUS							GENERAL DIMENSIONS (Ins.)										
		Type of Finish	Hood Hinge Location	Hood Counterbalanced	Hood Release Control	Windshield Type	Rear Window Type	Glass Area (Sq. In.)		L101	Overhang		Tread		Overall Dimensions				
								Windshield	Back Light		Total	L104	L105	W101	W102	L103	W103	WA	HB
1											Front Including Bumper Guards	Rear Including Bumper Guards	Front	Rear	Length—Bumper to Bumper	Width	Width—Doors Open	Height—Unloaded	
AMERICAN MOTORS CORP.																			
Rambler	American 5900 ¹	R	Y	Ex	SC	C	740.0	700.0	2615.0	100.0	31.4	46.9	54.6	55.0	178.3	73.0	150.1	.....
	Six 5910 ²	R	Y	Ex	SC	C	1105.7	1076.6	3446.2	108.0	32.0	51.2	57.8	58.0	191.2	72.2	145.0	.....
	Rebel 5920 ²	R	Y	Ex	SC	C	1105.7	1076.6	3446.2	108.0	32.0	51.2	58.8	59.1	191.2	72.2	145.0	.....
	Ambassador 5960 ²	R	Y	Ex	SC	C	1108.7	1076.6	3446.2	117.0	32.0	51.2	57.8	59.1	200.2	72.2	145.0	.....
CHRYSLER CORP.																			
Chrysler	Windsor MC1-L ²	E	R	Y	Ex	SC	C	1444.0	1319.0	4296.0	122.0	34.8	59.8	60.9	59.8	216.6	79.3	156.8	58.6
	Saratoga MC2-M ²	R	Y	Ex	SC	C	1444.0	1319.0	4293.0	126.0	34.8	59.8	61.2	60.0	220.6	79.3	156.8	58.6	
	New Yorker MC3-H ²	R	Y	Ex	SC	C	1444.0	1319.0	4293.0	126.0	35.0	59.9	61.2	60.0	220.9	79.5	156.8	58.6	
	300-E MC3-H ²	R	Y	Ex	CC	C	1586.0	1882.0	4601.0	126.0	35.0	59.9	61.2	60.0	220.9	79.5	167.4	56.5	
De Soto	Firesweep MS1-L ²	R	Y	Ex	SC	C	1444.0	1319.0	4296.0	122.0	35.0	58.5	60.9	59.8	215.5	78.7	156.6	58.6	
	Firedome MS2-M ²	R	Y	Ex	SC	C	1444.0	1319.0	4293.0	126.0	35.0	58.5	60.9	59.8	215.5	78.7	156.6	58.6	
	Fireflite MS3-H ²	R	Y	Ex	SC	C	1444.0	1319.0	4293.0	126.0	35.0	58.5	60.9	59.8	221.1	78.7	156.6	58.9	
	Adventurer MS3-H ²	R	Y	Ex	CC	C	1586.0	1882.0	4601.0	126.0	35.0	58.5	60.9	59.8	221.1	78.7	167.4	56.9	
Dodge	Coronet MD1-L ²	R	Y	Ex	SC	SC	1444.0	1173.0	4149.0	122.0	35.2	60.2	60.9	59.8	217.4	80.0	156.8	58.4	
	Coronet MD2-L ²	R	Y	Ex	SC	SC	1444.0	1173.0	4149.0	122.0	35.2	60.2	61.4	60.2	217.4	80.0	156.8	58.4	
	Roy, MD3-M ² , Cust. Roy, MD3-H ²	R	Y	Ex	SC	SC	1444.0	1173.0	4149.0	122.0	35.2	60.2	61.4	60.2	217.4	80.0	156.8	58.6	
	Imperial Imp., Crown, Le Baron MY1 ²	R	Y	Ex	CC	C	1622.0	1319.0	4637.0	129.0	37.6	59.7	61.8	62.4	226.3	81.0	199.7	56.9	
	Plymouth Savoy MP1-L ² , Bel. MP1-M ²	R	Y	Ex	SC	SC	1444.0	1173.0	4149.0	118.0	33.1	58.9	60.9	59.6	208.2	78.0	156.8	58.6	
	Savoy MP2-L ² , Belvedere MP2-M ²	E	R	Y	Ex	CC	SC	1444.0	1173.0	4149.0	118.0	33.1	58.9	60.9	59.7	208.2	78.0	156.8	58.5
	Fury MP2-H ²	E	R	Y	Ex	CC	SC	1586.0	1205.0	4114.0	118.0	33.1	58.9	60.9	59.7	208.2	78.0	167.4	56.0
	Sport Fury MP2-P ³	E	R	Y	Ex	CC	SC	1586.0	1205.0	4114.0	118.0	33.1	58.9	60.9	59.7	208.2	78.0	167.4	56.0
FORD MOTOR CO.																			
Edsel	Ranger 58D ²	E	F	Y	In	SC	C	1259.9	1136.5	3655.4	120.0	35.5	55.4	59.0	56.4	210.9	79.8	148.8	57.7
	Corsair 58B ²	E	F	Y	In	SC	C	1259.9	1136.5	3655.4	120.0	35.5	55.4	59.0	56.4	210.9	79.8	148.8	57.9
Ford	Cust. 300, 58E ² , Frtn. 58A ²	R	Y	In	C	C	1259.9	1136.5 ⁷	3655.4 ⁸	118.0	34.2	55.8	59.0	56.4	208.0	78.8	148.9	57.7	
	Fairlane 500, 58B ² , Galaxie 54A ²	F	Y	In	C	FI	1250.0	750.0	2913.0	113.0	35.6	56.7	60.0	57.0	205.3	77.0	163.3	54.2	
	Thunderbird 63A ²	E	F	Y	In	C	1701.1	1419.8	4560.6	131.0	35.4	60.6	61.0	61.0	227.1	80.1	157.9	58.0	
Lincoln	Lincoln 53A ² , Premiere 53B ²	E	F	Y	In	CC	TF	1701.1	633.1	3773.9	131.0	35.4	60.6	61.0	61.0	227.1	80.1	157.9	58.0
	Continental 54A ²	E	F	Y	In	CC	TF	1701.1	633.1	3773.9	131.0	35.4	60.6	61.0	61.0	227.1	80.1	157.9	58.0
Mercury	Monterey 58A ²	E	F	Y	In	CC	C	1852.9	1345.8	4487.6	126.0	34.7	57.1	60.0	60.0	217.8	80.7	159.4	57.5
	Montclair 58B ²	E	F	Y	In	CC	C	1852.9	1345.8	4487.6	126.0	34.7	57.1	60.0	60.0	217.8	80.7	170.1	57.8
	Park Lane 57C ⁴	E	F	Y	In	CC	C	1882.9	1850.5	5041.4	126.0	34.7	60.1	60.0	62.0	222.8	80.7	159.4	57.9
GENERAL MOTORS CORP.																			
Buick	Le Sabre 4400 ² , Invicta 4800 ²	L	R	Y	Ex	CC	C	1740.1	1557.6	4891.0	123.0	34.6	59.8	62.4	60.0	217.4	80.7	154.4	58.6
	Electra 4700 ¹	L	R	Y	Ex	CC	C	1740.1	1557.6	4783.9	126.3	34.6	59.8	62.4	60.0	220.6	80.7	154.4	58.8
	Electra 4800 ²	L	R	Y	Ex	CC	C	1740.1	1557.6	4919.1	126.3	34.6	64.4	62.4	60.0	225.4	80.7	154.4	58.8
Cadillac	6020 ²	L	R	Y	Ex	CC	C	1740.1	1553.7	4915.2	130.0	34.5	60.5	61.0	61.0	225.0	81.1	.....	.....
	6236 ²	L	R	Y	Ex	CC	C	1740.1	1553.7	4915.2	130.0	34.5	60.5	61.0	61.0	225.0	81.1	.....	.....
	6723 ²	L	R	Y	Ex	CC	C	1748.4	461.7	4291.1	149.8	34.5	80.5	61.0	61.0	244.8	80.2	.....	.....
Chevrolet	Biscayne ² , Bel Air ²	L	R	Y	Ex	CC	SC	1740.1	1553.7	4687.1	119.0	32.6	59.3	60.3	59.3	210.9	79.9	148.9	58.1
	Impala 1700 ² , 1800 ²	L	R	Y	Ex	CC	SC	1740.1	1553.7	4687.1	119.0	32.6	59.3	60.3	59.3	210.9	79.9	148.9	58.1
	Corvette 66 ²	L	F	N	In	SC	FP	908.0	408.0	1816.0	107.0	33.0	42.4	57.0	59.0	177.2	72.8	.....	52.4
Oldsmobile	Dynamic 58 ² , Super 58 ²	L	R	Y	Ex	CC	C	1808.7	1622.7	5040.7	123.0	36.4	59.0	61.0	61.0	218.4	80.8	148.9	57.7
	Ninety Eight 98 ²	L	R	Y	Ex	CC	C	1808.7	1622.7	5124.6	126.3	36.4	60.3	61.0	61.0	223.0	80.8	154.4	57.7
Pontiac	Catalina 5921 ²	L	R	Y	Ex	CC	CC	1740.1	1553.7	4687.1	122.0	35.2	63.7	64.0	64.0	213.7	80.7	148.9	58.6
	Star Chief 5924 ²	L	R	Y	Ex	CC	CC	1740.1	1553.7	4687.1	124.0	35.2	61.5	63.7	64.0	220.7	80.7	148.9	58.6
	Bonneville 5927 ⁴ , 5928 ⁶	L	R	Y	Ex	CC	CC	1711.8	1309.1	4081.2	124.0	35.2	61.5	63.7	64.0	220.7	80.7	148.9	58.6
STUDEBAKER-PACKARD CORP.																			
Studebaker	Lark 59-S ²	E	R	N	In	C	C	1121.7	897.7	3232.2	106.5	26.4	40.1	57.4	56.6	175.0	71.4	135.4	59.2
	Lark 59-V ²	E	R	N	In	C	C	1121.7	897.7	3232.2	106.5	26.4	40.1	57.4	56.6	175.0	71.4	135.4	58.9
	Silver Hawk 59-S ² , 59-V ²	E	R	N	In	C	C	856.0	910.0	2686.0	120.5	34.9	48.6	57.3 ⁹	56.3 ¹⁰	204.0	71.3	153.3	57.4 ¹¹

ABBREVIATIONS

- 1—Two door sedan.
- 2—Four door sedan.
- 3—Two door hard top.
- 4—Four door hard top.
- 5—Two door convertible.
- 6—Four door station wagon.
- 7—Galaxie, 766.S.
- 8—Galaxie, 3285.7.
- 9—Eight cylinder models, 57.4.
- 10—Eight cylinder models, 56.6.
- 11—Eight cylinder models, 57.8.
- C—One piece curved.
- CC—Compound curved.
- E—Enamel.
- Ex—External.
- F—Front.
- FI—One piece flat.
- FP—One piece flexible plastic.
- In—Internal.
- L—Lacquer.
- N—No.
- R—Rear.
- SC—Single curved.
- TF—Three piece flat.
- Y—Yes.

LENGTH DIMENSIONS



1959 U. S. PASSENGER CAR BODY DIMENSIONS

All dimensions apply to 5 or 6 passenger, 4 door sedan or equivalent model.

PASSENGER CAR MAKE AND MODEL		HEIGHT DIMENSIONS								WIDTH DIMENSIONS				LENGTH DIMENSIONS						
		Interior					Exterior			Interior				Exterior						
		H1	H2	H3	H8	H13	H106	H107	HC	HD	W3	W4	W5	W6	L3	L4	L5	L7	L17a	
		Front Headroom	Rear Headroom	Front Cushion Height to Floor	Rear Cushion Height to Floor	Steering Wheel Clearance to Seat Cushion	Angle of Approach— Deg	Angle of Departure— Deg	Ramp Breakover Angle— Deg	Minimum Road Clearance— In	Front Seat Shoulder Room	Rear Seat Shoulder Room	Front Seat Hip Room	Rear Seat Hip Room	Back of Front Seat to Rear Seat Back	Lap Room— Front	Lap Room— Rear	Steering Wheel Clearance	Adjustment of Front Seat	
AMERICAN MOTORS CORP.																				
	Rambler	American 5900 ¹	35.3	34.0	11.0	13.2	6.5	20.0	14.5	15.5	6.7	51.5	49.8	58.0	45.3	24.2	44.0	37.5	16.0	6.0
		Six 5910 ²	36.0	35.0	10.4	14.2	5.8	21.5	14.5	14.5	6.7 RM	57.7	57.8	59.8	60.1	27.9	43.0	40.0	14.4	6.0
		Rebel 5820 ²	36.0	35.0	10.4	14.2	5.8	21.0	14.0	14.0	6.3 RM	57.7	57.8	59.8	60.1	27.9	43.0	40.0	14.4	6.0
		Ambassador 5900 ²	36.0	35.0	10.4	14.2	5.8	21.5	13.5	12.5	6.3 RM	57.7	57.8	59.8	60.1	27.9	43.0	40.0	14.4	6.0
CHRYSLER CORP.																				
	Chrysler	Windor MC1-L ²	35.7	34.5	10.8	11.9	6.5	15.0	10.0	10.4	5.5 FSM	60.5	60.4	63.0	62.7	31.0	45.5	43.0	15.4	5.0
		Saratoga MC2-M ²	35.7	34.5	10.8	11.9	6.5	16.0	11.0	10.2	5.4 FSM	60.5	60.4	63.0	62.7	31.0	45.5	43.0	15.4	5.0
		New Yorker MC3-H ²	35.7	34.5	10.8	11.9	6.5	16.0	11.0	10.8	6.0 FSM	61.0	60.4	63.0	62.7	31.0	45.5	43.0	15.4	5.0
		300-E MC3-H ¹	34.4	33.7	10.8	10.0	6.2	16.0	11.0	10.8	6.0 FSM	61.0	60.5	63.0	59.0	27.0	45.5	39.0	15.4	5.0
	De Soto	Firewheeler MS1-L ²	35.7	34.5	10.8	11.9	6.5	15.0	10.0	10.4	5.5	60.5	60.4	63.0	62.7	29.1	45.5	43.0	15.4	4.8
		Firewheeler MS2-M ² , Firewheeler MS3-H ²	35.7	34.5	10.8	11.9	6.5	15.0	11.0	10.4	5.6	60.5	60.4	63.0	62.7	29.1	45.5	43.0	15.4	4.8
		Adventurer MS3-H ²	34.4	33.7	10.8	10.0	6.2	15.0	11.0	10.4	5.6	61.0	60.5	63.0	59.0	25.0	45.5	39.0	15.4	4.8
	Dodge	Coronet MD1-L ² , MD2-L ²	35.7	34.5	10.8	11.9	6.5	17.0	10.0	10.1	5.4 F	60.5	60.4	63.0	62.7	31.0	45.5	42.5	15.4	4.8
		Roy, MD3-M ² , Cust. Roy, MD3-H ²	35.7	34.5	10.8	11.9	6.5	17.0	10.0	10.1	5.4 F	60.5	60.4	63.0	62.7	31.0	45.5	42.5	15.4	4.8
	Imperial	Imperial MY1-L ²	36.2	34.2	11.0	13.2	6.4	14.0	10.0	10.2	5.8 FSM	64.0	62.0	61.0	60.2	33.0	45.5	46.5	16.1	5.0
		Crown MY1-M ² , Le Baron MY1-L ²	36.2	34.2	10.8	13.2	6.6	14.0	10.0	10.2	6.8 FSM	64.0	62.0	61.0	60.2	33.2	46.5	45.5	15.9	5.0
	Plymouth	Savoy ² , Belvedere ²	35.7	34.2	10.8	12.0	6.5	22.0	11.0	10.4	5.4 FSM	60.5	60.4	63.0	62.7	29.9	45.5	41.5	15.4	4.8
		Fury MP2-H ²	35.7	34.2	10.8	12.0	6.5	22.0	11.0	10.4	5.4 FSM	60.5	60.4	63.0	62.7	29.9	45.5	41.5	15.4	4.8
		Sport Fury MP2-P ³	33.8	34.0	10.0	9.5	6.2	22.0	11.0	10.4	5.4 FSM	61.0	60.5	63.0	59.0	26.5	45.8	39.8	19.4	4.8
FORD MOTOR CO.																				
	Edsel	Ranger 58D ²	33.8	33.5	10.1	12.8	5.2	21.0	11.8	12.5	6.0 RFW	56.7	57.0	60.4	60.8	30.0	42.8	40.4	13.3	4.0
		Corsair 59B ²	33.8	33.5	10.1	12.8	5.2	23.0	12.0	12.9	6.0 RFW	56.7	57.0	60.4	60.8	29.8	42.8	40.4	13.3	4.0
	Ford	Custom 300 58E ² , Fairlane 58A ²	33.8	33.5	10.1	12.8	5.5	22.8	12.0	12.7	6.0 F	56.7	57.0	60.4	60.8	31.0	42.8	40.4	13.0	4.0
		Galaxie 54A ²	34.5	33.3	11.0	13.1	5.7	19.7	13.1	12.5	5.8 BSC	56.2	54.1	59.8	49.7	28.2	43.4	38.1	14.4	4.0
		Thunderbird 63A ³	34.9	33.7	11.5	14.5	5.0	21.1	12.0	12.6	6.3 FRT	63.1	63.0	61.0	65.5	35.2	44.1	46.1	15.4	5.0
	Lincoln	Lincoln 53A ² , Premiere 53B ²	34.9	33.9	11.5	14.5	5.0	21.1	12.0	12.6	6.3 FRT	63.1	63.0	61.0	65.1	31.2	44.1	46.1	15.4	5.0
		Continental 54A ²	34.9	33.9	11.5	14.5	5.0	21.1	12.0	12.6	6.3 FRT	63.1	63.0	61.0	65.1	31.2	44.1	46.1	15.4	5.0
	Mercury	Monterey 58A ²	33.2	32.9	10.4	12.4	4.9	20.3	11.1	11.7	5.7 FDL	60.5	60.8	62.5	62.8	32.5	44.3	43.8	14.8	5.0
		Montclair 58B ¹	33.2	32.9	10.4	12.4	4.9	20.7	11.8	11.5	6.0 FDL	60.5	60.8	62.5	62.8	32.5	44.3	43.8	14.8	5.0
		Park Lane 57C ⁴	33.2	32.9	10.4	13.0	4.9	20.7	11.0	11.5	6.0 FDL	60.5	60.8	62.5	62.8	36.2	44.3	41.5	14.8	5.0
GENERAL MOTORS CORP.																				
	Buick	Le Sabre 4400 ²	34.7	33.9	9.8	13.2	5.1	22.2	14.2	12.5	6.1 RAS	60.4	59.0	65.4	65.4	29.7	44.0	42.8	14.1	4.8
		Invicta 4600 ²	34.7	33.9	9.8	13.0	5.1	22.2	14.2	12.5	6.1 RAS	60.4	59.0	65.4	65.4	29.7	43.9	42.7	14.1	4.8
		Electra 4700 ²	34.3	33.4	10.0	13.8	4.7	22.7	14.4	12.3	6.3 RAS	60.0	59.0	65.2	65.0	33.0	43.7	46.2	13.8	4.8
		Electra 4800 ²	34.3	33.3	10.0	13.8	4.7	22.7	13.2	12.3	6.3 RAS	60.0	59.0	65.2	64.9	32.6	43.7	45.6	13.8	4.8
	Cadillac	6029 ²	35.0	33.0	9.5	13.8	4.9	21.6	12.1	12.2	5.9	60.1	59.1	64.8	64.4	30.7	45.5	43.5	13.8	4.8
		6239 ²	33.2	33.8	9.4	12.0	4.9	21.6	12.1	12.2	5.9	60.5	59.1	64.6	65.7	31.1	45.5	42.9	15.8	
		6723 ²	36.2	34.8	8.5	13.1	5.4	23.8	13.3	12.1	7.0	60.5	58.8	65.4	60.1	26.6	43.9	37.4	14.4	
	Chevrolet	Biscayne ² , Bel Air ²	36.1	34.3	9.2	13.8	5.2	26.0	12.8	12.5	6.0 M	60.5	59.7	66.1	65.5	29.2	45.0	42.8	14.2	4.7
		Impala 1700 ² , 1800 ²	36.1	34.3	9.2	13.8	5.2	26.0	12.8	12.5	6.0 M	60.5	59.7	66.1	65.5	29.2	45.0	42.8	14.2	4.7
		Corvette 687 ³	35.3	N	7.3	N	5.3	20.8	16.5	7.5	5.9 FSH	59.4	N	59.8	N	45.1	N	16.0	4.4	
	Oldsmobile	Dynamic 88 ²	34.9	34.2	9.8	13.7	4.9	25.5	12.1	6.3	5.5 FCB	60.5	59.7	66.1	65.5	29.2	44.8	42.5	13.7	5.4
		Super 88 ²	34.9	34.2	9.6	13.6	4.9	25.5	12.1	6.3	5.5 FCB	60.5	59.7	66.1	65.5	29.2	44.5	42.4	13.7	5.4
		Ninety Eight 88 ²	34.3	34.2	9.9	13.6	4.9	25.5	11.9	6.1	5.5 FCB	60.5	59.1	66.1	65.5	32.5	44.5	45.4	13.7	5.4
	Pontiac	Catalina 5921 ²	34.8	33.9	9.9	13.6	4.8	20.8	12.1	11.5	5.8 FSM	60.4	59.0	65.4	65.4	29.2	44.8	42.5	14.6	4.8
		Star Chief 5924 ²	34.8	33.9	9.7	13.3	4.8	20.8	11.2	11.5	5.8 FSM	60.4	59.0	65.4	65.4	29.2	44.6	42.2	14.6	4.8
		Bonneville 5927 ² , 5928 ²	32.8	34.2	9.8	11.5	4.6	20.8	11.2	11.3	5.8 FSM	60.4	59.0	65.4	66.2	29.8	44.6	41.1	14.6	4.8
STUDEBAKER-PACKARD CORP.																				
	Studebaker	Lark 59-S-W ² , 59-V-W ²	36.0	35.0	12.3	11.0	5.5	29.5	18.5	12.5	6.1 ERS	55.5	54.5	59.5	59.0	27.5	44.0	41.0	13.8	5.5
		Silver Hawk 59-S-C ³ , 59-V-C ³	35.5	34.5	12.3	9.6	4.5	20.0	17.0	14.0	6.5 FPC	55.0	53.0	59.5	58.0	26.8	44.0	37.0	13.3	5.5

ABBREVIATIONS

- 1—Two door sedan.
2—Four door sedan.
3—Two door hard top
4—Four door hard top
5—Two door convertible.
6—Four door station wagon.
7—Eight cylinder models, 6.87 FPC.
BST—Bottom of spare tire w ll.
ERS—Engine rear support cross member.

- F**—Frame. **FCS**—Frame cross bar.
FDL—Frame at dash line.
FPC—Body front pillar cross member.
FRC—Front reonator clamp.
FSM—Frame side member.

- M—Muffler. N—None.
RAS—Rear axle strut rod.
RFW—Rear of front wheels.
RSH—Rear spring front hanger.
RM—Rear of muffler.

GENERAL ENGINE DATA, PISTONS

PASSENGER CAR MAKE AND MODEL	STANDARD ENGINE										PISTONS														
	Type	Valve Arrangement	Number of Cylinders, Bore and Stroke	Piston Disp., Cu. In.	Compression Ratio (to 1)		Mounting Points		Tallable HP	Published Maximum RHP at Engine RPM	Published Maximum Torque (lb. ft. at RPM)	Recommended Idle Speed - RPM	Shipping Weight 5-6 Pass., 4 Dr., Sed.	Weight per Cu. In. ¹	HP per Cu. In.	Description of Finish	Weight-Only (Piston Only)	Clearance		Ring Groove Depth					
					Standard	Optional	Front	Rear										Top Land	Top of Skirt	Bottom of Skirt	No. 1 Ring	No. 2 Ring	No. 3 Ring	No. 4 Ring	
AMERICAN MOTORS CORP.	IL	L	6-3 1/2x4 1/4	185.6	8.00			23.44	90-3800	150-1600	550	2476	15.27	33.07	.440	Ph, Sn, Tn, Co	14.00	.0180	.0012	.0009	.1690	.1690	.1730	N	
	IL	L	6-3 1/2x4 1/4	195.6	8.70			23.44	127-4200	180-1600	550	2934	17.96	27.04	.648	So, Tn, Co	14.70	.0180	.0012	.0009	.1690	.1690	.1730	N	
	V	HH	8-3 1/2x3 1/4	250.0	8.70			31.20	270-4900	360-2500	550	3267	16.19	17.61	.860	SS, Tn, Au	18.00	.0300	.0017	.0012	.1670	.1670	.1890	N	
	V	HH	8-4 3/4x3 1/4	327.0	9.70			51.20				3426	12.01	14.56	.826	So, Tn, Au	23.40	.0300	.0017	.0012	.1670	.1670	.1890	N	
CHRYSLER CORP.	V	HH	8-4 1/2x3 1/4	383.0	10.10			52.00	305-4600	415-2400	475	3900	11.23	14.10	.796	SS, S, L, E, T, P	26.30	.0045	.0008		.2100	.2100	.2000	N	
	V	HH	8-4 1/2x3 1/4	413.0	10.10			52.00	325-4600	475-2800	475	4010	11.78	13.86	.849	So, S, L, E, T, P	26.30	.0045	.0008		.2100	.2100	.2000	N	
	V	HH	8-4 1/2x3 1/4	413.0	10.10			55.90	350-4600	475-2800	475	4120	11.19	13.20	.847	So, S, L, E, T, P	27.50	.0045	.0008		.2100	.2100	.2000	N	
	V	HH	8-4 1/2x3 1/4	413.0	10.10			55.90	350-4600	475-2800	475	4120	11.19	13.20	.847	So, S, L, E, T, P	27.50	.0045	.0008		.2100	.2100	.2000	N	
	V	HH	8-4 1/2x3 1/4	381.0	10.10			54.30	380-4600	475-2800	475	3870	11.55	14.38	.920	So, S, L, E, T, P	25.60	.0040	.0008		.2100	.2100	.2000	N	
	V	HH	8-4 1/2x3 1/4	383.0	10.10			57.80	325-4600	410-2400	475	3940	11.80	14.23	.796	So, S, L, E, T, P	27.20	.0040	.0008		.2100	.2100	.2000	N	
	V	HH	8-4 1/2x3 1/4	383.0	10.10			57.80	325-4600	410-2400	475	3940	11.80	14.23	.796	So, S, L, E, T, P	27.20	.0040	.0008		.2100	.2100	.2000	N	
	V	HH	8-4 1/2x3 1/4	393.0	10.10			57.80	330-5000	425-2800	475	3920	11.54	13.96	.914	So, S, L, E, T, P	27.20	.0040	.0008		.2100	.2100	.2000	N	
	V	HH	8-4 1/2x3 1/4	326.0	9.20			49.90	255-4400	395-1900	475	3426	17.07	28.07	.587	Ua, E, T, P	15.90	.0030	.0008		.1700	.1700	.1700	N	
	V	HH	8-4 1/2x3 1/4	381.0	10.10			54.30	395-4600	475-2800	475	3815	12.62	16.14	.752	Ua, E, T, P	20.90	.0032	.0010		.2100	.2100	.2000	N	
	V	HH	8-4 1/2x3 1/4	381.0	10.10			54.30	395-4600	475-2800	475	3860	11.47	14.03	.817	So, S, L, E, T, P	25.60	.0042	.0008		.2100	.2100	.2000	N	
	V	HH	8-4 1/2x3 1/4	413.0	10.10			57.60	415-2400	475-2800	475	3860	11.52	13.64	.845	So, S, L, E, T, P	25.60	.0042	.0008		.2100	.2100	.2000	N	
FORD MOTOR CO.	IL	L	6-3 1/2x4 1/4	223.0	8.00			25.30	350-4600	205-1200	475	3275	16.41	26.80	.574	Ua, E, T, P	15.80	.0030	.0007		.1700	.1700	.1700	N	
	V	HH	8-3 1/2x3 1/4	318.0	8.00			25.30	332-3600	205-1200	475	3275	16.41	26.80	.574	Ua, E, T, P	15.80	.0030	.0007		.1700	.1700	.1700	N	
	V	HH	8-3 1/2x3 1/4	318.0	8.00			46.90	230-4400	345-2400	475	3475	12.54	17.07	.723	So, H, E, T, P	21.00	.0032	.0010		.2100	.2100	.2000	N	
	V	HH	8-3 1/2x3 1/4	318.0	8.00			46.90	230-4400	345-2400	475	3475	12.54	17.07	.723	So, H, E, T, P	21.00	.0032	.0010		.2100	.2100	.2000	N	
GENERAL MOTORS CORP.	IL	L	6-3 1/2x3 1/4	223.0	8.40			31.54	145-4600	206-2200	500	3574	16.27	28.10	.850	Au, So, T, P	16.20	.0142	.0023	.0015	.2051	.2051	.2051	N	
	V	HH	8-3 1/2x3 1/4	292.0	8.80			41.00	200-4400	285-2200	500	3773	14.83	21.37	.685	Au, So, T, P	18.20	.0142	.0023	.0015	.2116	.2116	.2081	N	
	V	HH	8-4 3/4x3 1/4	332.0	8.80			51.20	225-4400	325-2200	500	3866	12.64	16.65	.676	Au, So, T, P	18.20	.0142	.0023	.0015	.2121	.2121	.2068	N	
	IL	L	6-3 1/2x3 1/4	223.0	8.40			31.54	145-4600	206-2200	500	3385	17.42	26.79	.650	Au, So, T, P	16.20	.0142	.0023	.0015	.2051	.2051	.2051	N	
	V	HH	8-3 1/2x3 1/4	292.0	8.80			41.00	200-4400	285-2200	500	3485	13.45	19.93	.685	Au, So, T, P	18.20	.0142	.0023	.0015	.2116	.2116	.2081	N	
	V	HH	8-4 3/4x3 1/4	352.0	9.80			51.20	200-4400	285-2200	500	3813	12.25	14.38	.852	Au, So, T, P	18.20	.0142	.0023	.0015	.2121	.2121	.2086	N	
	V	HH	8-4 3/4x3 1/4	352.0	9.80			51.20	200-4400	285-2200	500	3813	12.25	14.38	.852	Au, So, T, P	18.20	.0142	.0023	.0015	.2121	.2121	.2086	N	
	V	HH	8-4 3/4x3 1/4	430.0	10.00			59.17	350-4600	490-2800	450	4823	12.38	15.21	.814	Au, So, T, P	24.30	.0181	.0028	.0018	.2271	.2271	.2086	N	
	V	HH	8-3 1/2x3 1/4	312.0	8.75			46.21	210-4400	325-2200	450	4023	14.11	20.96	.673	Au, So, T, P	20.90	.0257	.0017	.0009	.2026	.2026	.1936	N	
	V	HH	8-3 1/2x3 1/4	383.0	10.00			59.17	322-4600	420-2800	450	4158	12.16	14.47	.841	Au, So, T, P	31.30	.0191	.0028	.0018	.2271	.2271	.2086	N	
	V	HH	8-4 1/2x3 1/4	430.0	10.00			59.17	345-4400	495-2800	450	4388	11.37	14.17	.802	Au, So, T, P	29.30	.0191	.0028	.0018	.2271	.2271	.2086	N	
	STUDEBAKER-PACKARD CORP.	V	HH	8-4 1/2x3 1/4	364.0	8.50			54.45	250-4600	394-2400	485	4228	12.98	18.92	.687	Ca, Tn, Dn	22.64	.0330	.0011	.0024	.2150	.2150	.2200	N
		V	HH	8-4 1/2x3 1/4	401.0	10.50			58.11	325-4400	445-2800	485	4331	12.05	14.66	.810	Ca, Tn, Dn	23.68	.0330	.0013	.0028	.2150	.2150	.2175	N
V		HH	8-4 3/4x3 1/4	390.0	10.50			51.20	325-4800	430-3100	450	4770	13.51	16.22	.833	T, Co, Gt, Sc	22.56	.0345	.0015	N	.2080	.2080	.2080	N	
V		HH	8-3 1/2x3 1/4	235.5	8.25			30.40	135-4600	217-2200	475	3905	17.43	30.41	.673	Fh, Co	18.68	.0375	.0008		.2020	.2020	.2020	N	
STUDEBAKER	V	HH	8-3 1/2x3 1/4	263.0	8.50			30.40	135-4600	217-2200	475	3905	17.43	30.41	.673	Fh, Co	18.68	.0375	.0008		.2020	.2020	.2020	N	
	V	HH	8-3 1/2x3 1/4	263.0	8.50			30.40	135-4600	217-2200	475	3905	17.43	30.41	.673	Fh, Co	18.68	.0375	.0008		.2020	.2020	.2020	N	
	V	HH	8-3 1/2x3 1/4	263.0	8.50			30.40	135-4600	217-2200	475	3905	17.43	30.41	.673	Fh, Co	18.68	.0375	.0008		.2020	.2020	.2020	N	
	V	HH	8-3 1/2x3 1/4	263.0	8.50			30.40	135-4600	217-2200	475	3905	17.43	30.41	.673	Fh, Co	18.68	.0375	.0008		.2020	.2020	.2020	N	
	V	HH	8-3 1/2x3 1/4	263.0	8.50			30.40	135-4600	217-2200	475	3905	17.43	30.41	.673	Fh, Co	18.68	.0375	.0008		.2020	.2020	.2020	N	
	V	HH	8-3 1/2x3 1/4	263.0	8.50			30.40	135-4600	217-2200	475	3905	17.43	30.41	.673	Fh, Co	18.68	.0375	.0008		.2020	.2020	.2020	N	
STUDEBAKER	V	HH	8-3 1/2x3 1/4	371.0	8.75			51.00	220-4800	300-3000	460	4182	11.80	14.52	.713	Fh, Sn, Au	20.40	.0390	.0018		.2168	.2168	.2106	N	
	V	HH	8-3 1/2x3 1/4	371.0	8.75			51.00	220-4800	300-3000	460	4182	11.80	14.52	.713	Fh, Sn, Au	20.40	.0390	.0018		.2168	.2168	.2106	N	
	V	HH	8-4 1/2x3 1/4	394.0	9.75			51.00	270-4800	395-2400	460	4202	12.57	17.93	.728	Au, Co, Tn, St	25.82	.0310	.0018	.0013	.2095	.2095	.1965	N	
	V	HH	8-4 1/2x3 1/4	394.0	9.75			51.00	310-4600	430-2800	460	4202	12.57	17.93	.728	Au, Co, Tn, St	25.82	.0310	.0018	.0013	.2095	.2095	.1965	N	
STUDEBAKER	V	HH	8-4 1/2x3 1/4	389.0	8.60			52.50	245-4200	392-2000	460	4340	11.47	18.12	.658	Ca, So, Sn, T, P	24.19	.0285	.0012	.0009	.2110	.2110	.1835	N	
	V	HH	8-4 1/2x3 1/4	389.0	8.60			52.50	245-4200	392-2000	460	4070	11.75	17.58	.668	Ca, So, Sn, T, P	24.19	.0285	.0012	.0009	.2110	.2110	.1835	N	
	V	HH	8-4 1/2x3 1/4	389.0	8.60			52.50	245-4200	392-2000	460	4070	11.75	17.58	.668	Ca, So, Sn, T, P	24.19	.0285	.0012	.0009	.2110	.2110	.1835	N	
	V	HH	8-4 1/2x3 1/4	389.0	8.60			52.50	245-4200	392-2000	460	4070	11.75	17.58	.668	Ca, So, Sn, T, P	24.19	.0285	.0012	.0009	.2110	.2110	.1835	N	
STUDEBAKER	IL	L	6-3 1/2x3 1/4	169.6	8.30			21.60	90-4000	145-2000	550	2605	16.31	34.50	.634	Ca, T, T, P	10.60	.0173	SF	SF	.1635	.1635	.1635	N	
	V	HH	8-3 1/2																						

PISTON RINGS, PISTON PINS, AND CONNECTING RODS

• U. S. PASSENGER CARS •

PASSENGER CAR MAKE AND MODEL	PISTON RINGS										PISTON PIN										CONNECTING RODS								
	Bore	Type—Oil or Compression			Compression			Oil				Material	Length	Diameter	Locked In—	Type			In Piston Clearance	Direction Offset In Piston	Material	Weight (oz.)	Length (center to center)	Material	Overall Length	Clearance	End Play		
		No. 1	No. 2	No. 3	No. 4	Coating	Width	Gap	Material	Coating	Width					Gap	Location of Expanders	Material										In Piston	Clearance
AMERICAN MOTORS CORP. Rambler	3 1/2	C	C	C	Al	Ch	.0833	.015	St	1018	Ch	.0245	.035	OR	HMS	2.7500	.8897	PF	MT	1145	23.00	6.8350	Bab	.9800	.0013	.010			
	3 1/2	C	C	C	Al	Ch	.0777	.015	St	1016	Ch	.0245	.035	OR	HMS	2.7500	.8897	PF	MT	1145	27.50	6.3750	Bab	.8870	.0018	.008			
	4	C	C	C	Al	Ch	.0777	.015	St	1016	Ch	.0245	.035	OR	HMS	2.7500	.8897	PF	MT	1145	27.50	6.3750	Bab	.8870	.0018	.008			
	4	C	C	C	Al	Ch	.0777	.015	St	1016	Ch	.0245	.035	OR	HMS	2.7500	.8897	PF	MT	1145	27.50	6.3750	Bab	.8870	.0018	.008			
CHRYSLER CORP. Chrysler	4 1/2	C	C	C	C	Al	.0780	.019	Ci	1018	Ch	.0245	.035	OR	HMS	3.5000	1.0930	PF	MT	1145	29.80	6.7700	Bab	.8270	.0010	.013			
	4 1/2	C	C	C	C	Al	.0780	.019	Ci	1018	Ch	.0245	.035	OR	HMS	3.5000	1.0930	PF	MT	1145	29.80	6.7700	Bab	.8270	.0010	.013			
	4 1/2	C	C	C	C	Al	.0780	.019	Ci	1018	Ch	.0245	.035	OR	HMS	3.5000	1.0930	PF	MT	1145	29.80	6.7700	Bab	.8270	.0010	.013			
	4 1/2	C	C	C	C	Al	.0780	.019	Ci	1018	Ch	.0245	.035	OR	HMS	3.5000	1.0930	PF	MT	1145	29.80	6.7700	Bab	.8270	.0010	.013			
FORD MOTOR CO. Edsel	3 1/2	C	C	C	C	Al	.0833	.015	St	1018	Ch	.0245	.035	OR	AS	3.0230	.9122	F	R	FS	29.63	5.2600	Bab	1.0340	.0014	.006			
	3 1/2	C	C	C	C	Al	.07427	.018	St	1018	Ch	.0245	.035	OR	AS	3.1630	.9122	F	R	FS	25.75	6.2500	Cir	.7410	.0018	.011			
	3 1/2	C	C	C	C	Al	.0833	.015	St	1018	Ch	.0245	.035	OR	AS	3.0230	.9122	F	R	FS	25.75	6.2500	Cir	1.0340	.0014	.006			
	3 1/2	C	C	C	C	Al	.0833	.015	St	1018	Ch	.0245	.035	OR	AS	3.0230	.9122	F	R	FS	25.75	6.2500	Cir	1.0340	.0014	.006			
GENERAL MOTORS CORP. Buick	4 1/2	C	C	C	C	Al	.0775	.020	St	1118	Ch	.0245	.035	OR	AS	3.5200	.9986	R	N	N	1141	23.20	6.1000	Als	.8200	.0013	.009		
	4 1/2	C	C	C	C	Al	.0775	.020	St	1118	Ch	.0245	.035	OR	AS	3.5200	.9986	R	N	N	1141	23.20	6.1000	Als	.8200	.0013	.009		
	4 1/2	C	C	C	C	Al	.0775	.020	St	1118	Ch	.0245	.035	OR	AS	3.5200	.9986	R	N	N	1141	23.20	6.1000	Als	.8200	.0013	.009		
	4 1/2	C	C	C	C	Al	.0775	.020	St	1118	Ch	.0245	.035	OR	AS	3.5200	.9986	R	N	N	1141	23.20	6.1000	Als	.8200	.0013	.009		
STUDEBAKER-PACKARD CORP. Studebaker	3 1/2	C	C	C	C	Al	.0830 1/2	.012	Ci	8820	Ch	.0245	.035	OR	AS	2.6250	.7500	R	N	N	1041	19.04	6.3750	Bab	.9050	.0013	.007		
	3 1/2	C	C	C	C	Al	.0750	.012	Ci	8820	Ch	.0245	.035	OR	AS	2.6250	.7500	R	N	N	1041	23.71	6.3250	Bab	.8430	.0015	.011		
	3 1/2	C	C	C	C	Al	.0750	.012	Ci	8820	Ch	.0245	.035	OR	AS	2.6250	.7500	R	N	N	1041	23.71	6.3250	Bab	.8430	.0015	.011		
	3 1/2	C	C	C	C	Al	.0750	.012	Ci	8820	Ch	.0245	.035	OR	AS	2.6250	.7500	R	N	N	1041	23.71	6.3250	Bab	.8430	.0015	.011		

ABBREVIATIONS
 1—Upper only; lower, Laiterie.
 2—Upper only; lower, 2030.
 3—Upper only; lower, 2030.
 4—Upper only; lower, 2030.
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Chilton's MOTOR AGE • April 1959

ABBREVIATIONS

1—No. 4 bearing is cast iron.
2—No. 4 journal, .0020.
3—Nos. 1 and 2 only; Nos. 3 and 4—No. 5, .0027.
5—No. 1, .0015.

PASSENGER CAR MAKE AND MODEL		INTAKE										EXHAUST											
		Stem					Springs					Stem					Springs						
		Material	Overall Length	Head Overall	Angle (Deg.)	Seat	Guide Clearance	Lift (in.)	Valve Closed	Pressure (lb.)	Valve Open	Length (in.)	Material	Overall Length	Head Overall	Angle (Deg.)	Seat	Guide Clearance	Lift (in.)	Valve Closed	Pressure (lb.)	Valve Open	Length (in.)
Special Provision for Valve Rotation (Intake or Exhaust)		Flacker Ratio-to-1																					
AMERICAN MOTORS CORP.																							
NA	N	S-GS	4.761	1.468	45	N	.3410	.0023	.324	76.5	1.790	1.440	2112N	4.761	1.261	45	N	.3410	.0023	.322	78.5	1.790	1.440
NA	N	S-GS	4.799	1.594	45	N	.3415	.0028	.366	67.5	1.813	1.438	2112N	4.799	1.343	45	N	.3410	.0031	.351	67.5	1.790	1.440
NA	B	S-GS	1.767	1.767	30	N	.3720	.0020	.375	68.0	1.813	1.438	2112N	4.799	1.406	45	N	.3410	.0031	.351	68.0	1.790	1.440
NA	B	S-GS	1.767	1.767	30	N	.3720	.0020	.375	68.0	1.813	1.438	2112N	4.799	1.406	45	N	.3410	.0031	.351	68.0	1.790	1.440
CHRYSLER CORP.																							
Sid	N	S-GS	4.780	1.850	45	N	.3700	.0020	.390	100.0	1.860	1.470	21-4N	4.760	1.600	45	N	.3700	.0030	.390	100.0	1.860	1.470
Sid	N	S-GS	4.870	2.050	45	N	.3700	.0020	.390	100.0	1.860	1.470	21-4N	4.860	1.740	45	N	.3700	.0030	.390	100.0	1.860	1.470
Sid	N	S-GS	4.790	1.850	45	N	.3700	.0020	.390	100.0	1.860	1.470	21-4N	4.780	1.600	45	N	.3700	.0030	.390	100.0	1.860	1.470
Sid	N	S-GS	4.870	2.050	45	N	.3700	.0020	.390	100.0	1.860	1.470	21-4N	4.860	1.740	45	N	.3700	.0030	.390	100.0	1.860	1.470
Sid	N	S-GS	4.840	1.840	45	N	.3400	.0020	.360	72.0	1.860	1.310	21-4N	4.830	1.540	45	N	.3400	.0040	.365	72.0	1.790	1.380
Sid	N	S-GS	4.870	2.050	45	N	.3700	.0020	.390	100.0	1.860	1.470	21-4N	4.860	1.740	45	N	.3700	.0030	.390	100.0	1.860	1.470
Sid	N	S-GS	4.780	1.850	45	N	.3700	.0020	.390	100.0	1.860	1.470	21-4N	4.780	1.600	45	N	.3700	.0030	.390	100.0	1.860	1.470
Sid	N	S-GS	4.870	2.050	45	N	.3700	.0020	.390	100.0	1.860	1.470	21-4N	4.860	1.740	45	N	.3700	.0030	.390	100.0	1.860	1.470
Sid	N	S-GS	4.840	1.840	45	N	.3400	.0020	.365	42.0	1.750	1.380	CNS	4.830	1.410	45	N	.3400	.0040	.365	42.0	1.750	1.380
Sid	N	S-GS	4.840	1.840	45	N	.3400	.0020	.365	42.0	1.750	1.380	CNS	4.830	1.410	45	N	.3400	.0040	.365	42.0	1.750	1.380
Sid	N	S-GS	4.840	1.840	45	N	.3400	.0020	.365	42.0	1.750	1.380	CNS	4.830	1.410	45	N	.3400	.0040	.365	42.0	1.750	1.380
FORD MOTOR CO.																							
NA	B	S-GS	5.110	1.790	45 1/2	N	.3420	.0017	.369	75.0	1.790	1.390	CAS	5.090	1.510	45 1/2	N	.3402	.0035	.369	75.0	1.790	1.390
NA	B	S-GS	5.110	1.790	45 1/2	N	.3420	.0017	.369	75.0	1.790	1.390	CAS	5.090	1.510	45 1/2	N	.3402	.0035	.369	75.0	1.790	1.390
NA	B	S-GS	5.110	1.790	45 1/2	N	.3420	.0017	.369	75.0	1.790	1.390	CAS	5.090	1.510	45 1/2	N	.3402	.0035	.369	75.0	1.790	1.390
NA	B	S-GS	5.110	1.790	45 1/2	N	.3420	.0017	.369	75.0	1.790	1.390	CAS	5.090	1.510	45 1/2	N	.3402	.0035	.369	75.0	1.790	1.390
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NA	B	S-GS	5.110	1.790	45 1/2	N	.3420	.0017	.369	75.0	1.790	1.390	CAS	5.090	1.510	45 1/2	N	.3402	.0035	.369	75.0	1.790	1.390
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NA	B	S-GS	5.110	1.790	45 1/2	N	.3420	.0017	.369	75.0	1.790	1.390	CAS	5.090	1.510	45 1/2	N	.3402	.0035	.369	75.0	1.790	1.390
NA	B	S-GS	5.110	1.790	45 1/2	N	.3420	.0017	.369	75.0	1.790	1.390	CAS	5.090	1.510	45 1/2	N	.3402	.0035	.369	75.0	1.790	1.390
NA	B	S-GS	5.110	1.790	45 1/2	N	.3420	.0017	.369	75.0	1.790	1.390	CAS	5.090	1.510	45 1/2	N	.3402	.0035	.369	75.0	1.790	1.390
NA	B	S-GS	5.110	1.790	45 1/2	N	.3420	.0017	.369	75.0	1.790	1.390	CAS	5.090	1.510	45 1/2	N	.3402	.0035	.369	75.0	1.790	1.390
NA	B	S-GS	5.110	1.790	45 1/2	N	.3420	.0017	.369	75.0	1.790	1.390	CAS	5.090	1.510	45 1/2	N	.3402	.0035	.369	75.0	1.790	1.390
NA	B	S-GS	5.110	1.790	45 1/2	N	.3420	.0017	.369	75.0	1.790	1.390	CAS	5.090	1.510	45 1/2	N	.3402	.0035	.369	75.0	1.790	1.390
NA	B	S-GS	5.110	1.790	45 1/2	N	.3420	.0017	.369	75.0	1.790	1.390	CAS	5.090	1.510	45 1/2	N	.3402	.0035	.369	75.0	1.790	1.390
NA	B	S-GS	5.110	1.790	45 1/2	N	.3420	.0017	.369	75.0	1.790	1.390	CAS	5.090	1.510	45 1/2	N	.3402	.0035	.369	75.0	1.790	1.390
NA	B	S-GS	5.110	1.790	45 1/2	N	.3420	.0017	.369	75.0	1.790	1.390	CAS	5.090	1.510	45 1/2	N	.3402	.0035	.369	75.0	1.790	1.390
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NA	B	S-GS	5.110	1.790	45 1/2	N	.3420	.0017	.369	75.0	1.790	1.390	CAS	5.090	1.510	45 1/2	N	.3402	.0035	.369	75.0	1.790	1.390
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NA	B	S-GS	5.110	1.790	45 1/2	N	.3420	.0017	.369	75.0	1.790	1.390	CAS	5.090	1.510	45 1/2	N	.3402	.0035	.369	75.0	1.790	1.390
NA	B	S-GS	5.110	1.790	45 1/2	N	.3420	.0017	.369	75.0	1.790	1.390	CAS	5.090	1.510	45 1/2	N	.3402	.0035	.369	75.0	1.790	1.390
NA	B	S-GS	5.110	1.790	45 1/2	N	.3420	.0017	.369	75.0	1.790	1.390	CAS	5.090	1.510	45 1/2	N	.3402	.0035	.369	75.0	1.790	1.390
NA	B	S-GS	5.110	1.790	45 1/2	N	.3420	.0017	.369	75.0	1.790	1.390	CAS	5.090	1.510	45 1/2	N	.3402	.0035	.369	75.0	1.790	1.390
NA	B	S-GS	5.110	1.790	45 1/2	N	.3420	.0017	.369	75.0	1.790	1.390	CAS	5.090	1.510	45 1/2	N	.3402	.0035	.369	75.0	1.790	1.390
NA	B	S-GS	5.110	1.790	45 1/2	N	.3420	.0017	.369	75.0	1.790	1.390	CAS	5.090	1.510	45 1/2	N	.3402	.0035	.369	75.0	1.790	1.390
NA	B	S-GS	5.110	1.790	45 1/2	N	.3420	.0017	.369	75.0	1.790	1.390	CAS	5.090	1.510	45 1/2	N	.3402	.0035	.369	75.0	1.790	1.390
NA	B	S-GS	5.110	1.790	45 1/2	N	.3420	.0017	.369	75.0	1.790	1.390	CAS	5.090	1.510	45 1/2	N	.3402	.0035	.369	75.0	1.790	1.390
NA	B	S-GS	5.110	1.790	45 1/2	N	.3420	.0017	.369	75.0	1.790	1.390	CAS	5.090	1.510	45 1/2	N	.3402	.0035	.369	75.0	1.790	1.390
NA	B	S-GS	5.110	1.790	45 1/2	N	.3420	.0017	.369	75.0	1.790	1.390	CAS	5.090	1.510	45 1/2	N	.3402	.0035	.369	75.0	1.790	1.390
NA	B	S-GS	5.110	1.790	45 1/2	N	.3420	.0017	.369	75.0	1.790	1.390	CAS	5.090	1.510	45 1/2	N	.3402	.0035	.369	75.0	1.790	1.390
NA	B	S-GS	5.110	1.790	45 1/2	N	.3420	.0017	.369	75.0	1.790	1.390	CAS	5.090	1.510	45 1/2	N	.3402	.0035	.369	75.0	1.790	1.390
NA	B	S-GS	5.110	1.790	45 1/2	N	.3420	.0017	.369	75.0	1.790	1.390	CAS	5.090	1.510	45 1/2	N	.3402	.0035	.369	75.0	1.790	1.390
NA	B	S-GS	5.110	1.790	45 1/2	N	.3420	.0017	.369	75.0	1.790	1.390	CAS	5.090	1.510	45 1/2	N	.3402	.0035	.369	75.0	1.790	1.390
NA	B	S-GS	5.110	1.790	45 1/2	N	.3420	.0017	.369	75.0	1.790	1.390	CAS	5.090	1.510	45 1/2	N	.3402	.0035	.369	75.0	1.790	1.390
NA	B	S-GS	5.110	1.790	45 1/2	N	.3420	.0017	.369	75.0	1.790	1.390	CAS	5.090	1.510	45 1/2	N	.3402	.0035	.369	75.0	1.790	1.390
NA	B	S-GS	5.110	1.790	45 1/2	N	.3420	.0017	.369	75.0	1.790	1.390	CAS	5.090	1.510	45 1/2	N	.3402	.0035	.369	75.0	1.790	1.390
NA	B	S-GS	5.110	1																			

N—No or none.
NA—Not available.
SCS—Silichrome steel.
Std—Standard.

Bo—Both intake and exhaust.
CAS—Cast austenitic steel.
CNS—Chrome nickel steel.
E—Exhaust only.
MMS—Manganese moly steel.

t—Outer spring only; inner spring 25.0 at 1.450 with valve closed and 60.0 at 1.110 with valve open.

45—Alloy steel.

ABBREVIATIONS

1—Outer spring only; inner spring 25.5 at 1.690 with valve closed and 76.0 at 1.250 with valve open.

1.69 at 1

Chilton's MOTOR AGE • April 1959

ABBREVIATIONS

1. Main only; branch, 2.
2. Main only; branch, 17.
3. Main only; branch, 13.
4. Main only; branch, 18.
5. Miles per hour.
6. Miles per hour.
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100. Miles per hour.

ENVIRONMENTAL

ENVIRONMENTAL

July; branch, 2.

Only; branch, 17/8.

per hour.

ical on Silver Haw

FUEL AND COOLING SYSTEMS

FUEL SYSTEM				COOLING SYSTEM																				
PASSENGER CAR MAKE AND MODEL	Fuel Pump			Carburetor			Air Cleaner Type	Radiator Cap Relief Valve Pressure (lb.)	Thermostat Type	By-Pass Recirculation	Radiator Core Type	Capacity		Full Length Water All Around Cylinder	Radiator Hose									
	Type	Pressure Range (lb.)	Vacuum Booster	Make	Model Number	Number Used						Type	Barrel Size (in.)		Choke—Type	Standard	Optional	With Heater (qt.)	Without Heater (qt.)	Lower		Upper		By-Pass
																				Inside Diameter	Number and Type	Inside Diameter	Number and Type		Inside Diameter
AMERICAN MOTORS CORP.																								
Rambler	Car	20	PDM	4-5 1/2	N	Sid	Carl	YF-2014-S	1	SB	Aut	CFE	OB	13	Ch	TF	TF	Me	1 1/2	N				
8-5810	Car	20	Cer	4-5 1/2	N	Sid	Hol	1904-FC	1	SB	Aut	CFE	OB	13	Ch	TF	TF	Me	1 1/2	N				
8-5820	Car	20	Cer	4-5 1/2	N	Sid	Hol	4150-C1	1	SB	Aut	CFE	OB	13	Ch	TF	TF	Me	1 1/2	N				
8-5830	Car	20	Cer	4-5 1/2	N	Sid	Hol	4150-C1	1	SB	Aut	CFE	OB	13	Ch	TF	TF	Me	1 1/2	N				
CHRYSLER CORP.																								
Chrysler	Car	23	P-G	6-7	N	N	Carl	BBD-2872-S	1	Du	Sep	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MC1	Car	23	P-G	6-7	N	N	Carl	AFB-2788-S	1	Du	Sep	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MC2	Car	23	P-G	6-7	N	N	Carl	BBD-2870-S	1	Du	Sep	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MC3	Car	23	P-G	6-7	N	N	Carl	BBD-2871-S	1	Du	Sep	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
De Soto	Car	23	PC	6-7	N	N	Carl	BBD-2871-S	1	Du	Sep	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-M53	Car	23	PP	6-7	N	N	Carl	AFB-2794-S	1	FB	143753	Sep	PE	N	14	CP	C-F	Me	1 1/2	N				
Dodge	Car	20	PI	6-7	N	N	Carl	BBS-2987-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MD1	Car	20	PI	6-7	N	N	Carl	BBS-2987-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MD2	Car	20	PI	6-7	N	N	Carl	BBS-2987-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MD3-L	Car	20	PI	6-7	N	N	Carl	BBS-2987-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MD4	Car	20	PI	6-7	N	N	Carl	AFB-2773-S	1	FB	143753	Sep	PE	N	14	CP	C-F	Me	1 1/2	N				
8-MD5	Car	20	PI	6-7	N	N	Carl	AFB-2773-S	1	FB	143753	Sep	PE	N	14	CP	C-F	Me	1 1/2	N				
Imperial	Car	23	PP	6-7	N	N	Carl	BBS-2867-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MO1	Car	20	PI	6-7	N	N	Carl	BBS-2867-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MO2	Car	20	PI	6-7	N	N	Carl	BBS-2867-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MO3	Car	20	PI	6-7	N	N	Carl	BBS-2867-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MO4	Car	20	PI	6-7	N	N	Carl	BBS-2867-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MO5	Car	20	PI	6-7	N	N	Carl	BBS-2867-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MO6	Car	20	PI	6-7	N	N	Carl	BBS-2867-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MO7	Car	20	PI	6-7	N	N	Carl	BBS-2867-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MO8	Car	20	PI	6-7	N	N	Carl	BBS-2867-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MO9	Car	20	PI	6-7	N	N	Carl	BBS-2867-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MO10	Car	20	PI	6-7	N	N	Carl	BBS-2867-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MO11	Car	20	PI	6-7	N	N	Carl	BBS-2867-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MO12	Car	20	PI	6-7	N	N	Carl	BBS-2867-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MO13	Car	20	PI	6-7	N	N	Carl	BBS-2867-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MO14	Car	20	PI	6-7	N	N	Carl	BBS-2867-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MO15	Car	20	PI	6-7	N	N	Carl	BBS-2867-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MO16	Car	20	PI	6-7	N	N	Carl	BBS-2867-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MO17	Car	20	PI	6-7	N	N	Carl	BBS-2867-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MO18	Car	20	PI	6-7	N	N	Carl	BBS-2867-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MO19	Car	20	PI	6-7	N	N	Carl	BBS-2867-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MO20	Car	20	PI	6-7	N	N	Carl	BBS-2867-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MO21	Car	20	PI	6-7	N	N	Carl	BBS-2867-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MO22	Car	20	PI	6-7	N	N	Carl	BBS-2867-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MO23	Car	20	PI	6-7	N	N	Carl	BBS-2867-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MO24	Car	20	PI	6-7	N	N	Carl	BBS-2867-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MO25	Car	20	PI	6-7	N	N	Carl	BBS-2867-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MO26	Car	20	PI	6-7	N	N	Carl	BBS-2867-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MO27	Car	20	PI	6-7	N	N	Carl	BBS-2867-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MO28	Car	20	PI	6-7	N	N	Carl	BBS-2867-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MO29	Car	20	PI	6-7	N	N	Carl	BBS-2867-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MO30	Car	20	PI	6-7	N	N	Carl	BBS-2867-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MO31	Car	20	PI	6-7	N	N	Carl	BBS-2867-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MO32	Car	20	PI	6-7	N	N	Carl	BBS-2867-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MO33	Car	20	PI	6-7	N	N	Carl	BBS-2867-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MO34	Car	20	PI	6-7	N	N	Carl	BBS-2867-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MO35	Car	20	PI	6-7	N	N	Carl	BBS-2867-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MO36	Car	20	PI	6-7	N	N	Carl	BBS-2867-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MO37	Car	20	PI	6-7	N	N	Carl	BBS-2867-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MO38	Car	20	PI	6-7	N	N	Carl	BBS-2867-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MO39	Car	20	PI	6-7	N	N	Carl	BBS-2867-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MO40	Car	20	PI	6-7	N	N	Carl	BBS-2867-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MO41	Car	20	PI	6-7	N	N	Carl	BBS-2867-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MO42	Car	20	PI	6-7	N	N	Carl	BBS-2867-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MO43	Car	20	PI	6-7	N	N	Carl	BBS-2867-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MO44	Car	20	PI	6-7	N	N	Carl	BBS-2867-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MO45	Car	20	PI	6-7	N	N	Carl	BBS-2867-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MO46	Car	20	PI	6-7	N	N	Carl	BBS-2867-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MO47	Car	20	PI	6-7	N	N	Carl	BBS-2867-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MO48	Car	20	PI	6-7	N	N	Carl	BBS-2867-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MO49	Car	20	PI	6-7	N	N	Carl	BBS-2867-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MO50	Car	20	PI	6-7	N	N	Carl	BBS-2867-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MO51	Car	20	PI	6-7	N	N	Carl	BBS-2867-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MO52	Car	20	PI	6-7	N	N	Carl	BBS-2867-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MO53	Car	20	PI	6-7	N	N	Carl	BBS-2867-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MO54	Car	20	PI	6-7	N	N	Carl	BBS-2867-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MO55	Car	20	PI	6-7	N	N	Carl	BBS-2867-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MO56	Car	20	PI	6-7	N	N	Carl	BBS-2867-S	1	SB	Int	PE	N	14	CP	C-F	C-F	Me	1 1/2	N				
8-MO57	Car	20	PI	6-7	N	N																		

FAN, BATTERY, AND ELECTRICAL SUPPLY SYSTEM

ELECTRICAL SUPPLY SYSTEM																											
PASSENGER CAR MAKE AND MODEL	FAN			BATTERY			Generator			Regulator																	
	Number of Blades	Spacing (deg.)	Diameter (in.)	Ratio—Fan to Crankshaft rev.	Cutout Type	Bearing Type	Make	Model	Voltage Rating	Plates per Cell	Terminal Grounded	Make	Model	Type	Cut-out Relay			Regulated Voltage	Voltage Test Conditions								
															Chasing Voltage at Generator R.P.M.	Reverse Current to Open (amp.)	Current		Temperature (deg.)	Load	Other						
AMERICAN MOTORS CORP. Rambler..... 8-3800 8-3801 8-3802 8-3803 8-3804 8-3805	4	17, 104	14	1.22	N	B	AL	11-MS-40	12	7-40	Neg	DR	1100304	Sh	2.08	570	DR	1119122	CV	12.8-1300	1-3 1/2	14.5	25	70F	10 amp
	4	17, 104	14	1.22	N	B	AL	11-MS-45	12	7-45	Neg	DR	1100304	Sh	2.08	570	DR	1119122	CV	12.8-1300	1-3 1/2	14.5	25	70F	10 amp
	4	17, 104	18	.92	N	B	AL	11-MS-50	12	9-50	Neg	DR	1100304	Sh	2.34	485	DR	1119122	CV	12.8-1300	1-3 1/2	14.5	30	70F	10 amp
	4	17, 104	18	.92	N	B	AL	11-MS-60	12	11-60	Neg	DR	1102018	Sh	2.34	485	DR	1119003	CV	12.8-1300	1-3 1/2	14.5	30	70F	10 amp
CHRYSLER CORP. Chrysler..... 8-MC1, MC2, MC3 8-MC3, 300-E																											

TP—Two pole.
Vib—Vibrator.
W-A—Willard or Auto-Life.
Will—Willard.

OT—Operating temperature.
RV—Rated voltage.
SF—Silent-Flite.
Sh—Shunt.
TC—Three coil.

Fo—Ford.
Gou—Gould.
H—Hot.
N—None.
Neg—Negative.

B—Ball.
CV—Current in circuit.
DR—Delco-Remy.
F—Degrees Fahrenheit.
F-A—Ford or American Bosch.

5—Lark only; American Bosch, 2700017.
6—Revolutions per minute.
7—Lark only; Hawk, 154.
AL—Auto-Life.
amp—Amperes.

ABBREVIATIONS
1—46, 92, 65, 85, 92.
2—Willard only; Auto-Life, 12-H-70.
3—Willard only; Auto-Life, 11-HS-60.
4—Ford only; American Bosch, 2700015.

STARTING AND IGNITION SYSTEMS

• U. S. PASSENGER CARS •

PASSENGER CAR MAKE AND MODEL	STARTING SYSTEM										DRIVE		COIL		IGNITION SYSTEM											
	MOTOR					Engagement—Type					Flywheel Teeth	Flywheel Face Width	Model	Engine Stopped		Amperage	Make	Model	Centrifugal Advance (at RPM)		Vacuum Advance (Inches of Mercury)		Breaker Gap (in.)	Cam Angle (deg.)	Breaker Arm Tension (oz.)	
	Model	Engine Cranking Speed (RPM)	Test Conditions	Lock Test		No Load Test	Starting Procedure	Pinion	Number Teeth	Amps.				Volts	Torque (ft. lb.)				Amps.	Volts	Start	Maximum				Start
				Amps.	Volts																					
AMERICAN MOTORS CORP. Rambler 8-5900 8-5910 8-5920 8-5960	1107731	150	385	3.5	10.5	112	10.6	3240	Tik	SA	SA	9	148	DR	1115047	2.75	1.45	DR	0-850	14.8-4000	0-5.0	11.0-11.0	.016	32	21	
	1107731	150	385	3.5	10.5	112	10.6	3240	Tik	SA	SA	9	148	DR	1115047	2.75	1.45	DR	0-850	14.8-4000	0-5.0	11.0-11.0	.016	32	21	
	1107731	150	385	3.5	10.5	112	10.6	3240	Tik	SA	SA	9	148	DR	1115047	2.75	1.45	DR	0-850	14.8-4000	0-5.0	11.0-11.0	.016	32	21	
	1107731	150	385	3.5	10.5	112	10.6	3240	Tik	SA	SA	9	148	DR	1115047	2.75	1.45	DR	0-850	14.8-4000	0-5.0	11.0-11.0	.016	32	21	
CHRYSLER CORP. Chrysler 8-MC1 MC2 8-MC3 8-MC3 300-E 8-M51 8-M52, M53 8-M53 Adventure 8-MD1 8-MD2 8-MD3 8-MD4 8-MV1 8-MV1 8-MP1 8-MP2 8-MP2 Sport Fury	MDT-6002	150	CW	350	4.0	8.5	80	11.0	3600	Tik	SP	SP	9	172	AL	CAH-4001	3.10	2.50	AL	0-785	15.0-4700	0-7.6	22.0-16.4	.017	30	19
	MDT-6002	150	CW	350	4.0	8.5	80	11.0	3600	Tik	SP	SP	9	172	AL	CAH-4001	3.10	2.50	AL	0-785	15.0-4700	0-7.6	22.0-16.4	.017	30	19
	MDT-6001	150	CW	350	4.0	8.5	80	11.0	3600	Tik	In	In	9	172	AL	CAH-4001	3.10	2.50	AL	0-785	15.0-4700	0-7.6	22.0-16.4	.017	30	19
	MDT-6002	150	CW	350	4.0	8.5	80	11.0	3600	Tik	SP	SP	9	172	AL	CAH-4001	3.10	2.50	AL	0-785	15.0-4700	0-7.6	22.0-16.4	.017	30	19
	MDU-6003	150	CW	350	4.0	8.0	50	11.0	3600	Tik	In	In	9	172	AL	CAH-4001	3.10	2.50	AL	0-785	15.0-4700	0-7.6	22.0-16.4	.017	30	19
	MDU-6003	150	CW	350	4.0	8.0	50	11.0	3600	Tik	In	In	9	172	AL	CAH-4001	3.10	2.50	AL	0-785	15.0-4700	0-7.6	22.0-16.4	.017	30	19
	MDU-6001	150	CW	350	4.0	8.5	80	11.0	3600	Tik	In	In	9	172	AL	CAH-4001	3.10	2.50	AL	0-785	15.0-4700	0-7.6	22.0-16.4	.017	30	19
	MDU-6002	150	CW	350	4.0	8.5	80	11.0	3600	Tik	In	In	9	172	AL	CAH-4001	3.10	2.50	AL	0-785	15.0-4700	0-7.6	22.0-16.4	.017	30	19
	MDU-6003	150	CW	350	4.0	8.0	50	11.0	3600	Tik	In	In	9	172	AL	CAH-4001	3.10	2.50	AL	0-785	15.0-4700	0-7.6	22.0-16.4	.017	30	19
	MDU-6001	150	CW	350	4.0	8.5	80	11.0	3600	Tik	In	In	9	172	AL	CAH-4001	3.10	2.50	AL	0-785	15.0-4700	0-7.6	22.0-16.4	.017	30	19
	MDU-6002	150	CW	350	4.0	8.5	80	11.0	3600	Tik	In	In	9	172	AL	CAH-4001	3.10	2.50	AL	0-785	15.0-4700	0-7.6	22.0-16.4	.017	30	19
	MDU-6003	150	CW	350	4.0	8.0	50	11.0	3600	Tik	In	In	9	172	AL	CAH-4001	3.10	2.50	AL	0-785	15.0-4700	0-7.6	22.0-16.4	.017	30	19
	MDU-6001	150	CW	350	4.0	8.5	80	11.0	3600	Tik	In	In	9	172	AL	CAH-4001	3.10	2.50	AL	0-785	15.0-4700	0-7.6	22.0-16.4	.017	30	19
	MDU-6002	150	CW	350	4.0	8.5	80	11.0	3600	Tik	In	In	9	172	AL	CAH-4001	3.10	2.50	AL	0-785	15.0-4700	0-7.6	22.0-16.4	.017	30	19
	MDU-6003	150	CW	350	4.0	8.0	50	11.0	3600	Tik	In	In	9	172	AL	CAH-4001	3.10	2.50	AL	0-785	15.0-4700	0-7.6	22.0-16.4	.017	30	19
	MDU-6001	150	CW	350	4.0	8.5	80	11.0	3600	Tik	In	In	9	172	AL	CAH-4001	3.10	2.50	AL	0-785	15.0-4700	0-7.6	22.0-16.4	.017	30	19
FORD MOTOR CO. Edsel 8-Ranger 8-Cougar 8																										

ABBREVIATIONS
 1.—El Dorado models, 1115119.
 AL—Auto-Lite.
 Ben—Bendix.
 BF—Bendix Face-Thru.
 CW—Completely warmed engine.
 Dap—Depress accelerator pedal.
 DR—Delco-Remy.
 F—Degrees Fahrenheit.
 F-E—Ford or Essex Wire.
 Fe—Ford.
 Hd—Holley or Ford.
 Hd—Holley.
 H50—Helical spline sliding gear and overrunning clutch.
 In—Inertia.
 In-Lucina.
 OT—Engine at operating temperature.
 RT—Room temperature.
 S—Solenoid actuated.
 SSO—Solenoid gear and overrunning clutch.
 SP—Solenoid, positive, overrunning clutch.
 TR—Turn ignition key to extreme check-
 wise position.
 SOC—Solenoid with overrunning clutch.

IGNITION TIMING, SPARK PLUGS, AND CLUTCHES

PASSENGER CAR MAKE AND MODEL	11	IGNITION TIMING			SPARK PLUGS			Cylinder Numbering System Firing Order	Suppression Type	CLUTCH (PEDAL OPERATED)												
		C/s deg. @ RPM	Mark Location	Make and Model	Thread (mm)	Tightening Torque (ft. lb.)	Gap			Facing				Total Plate Pressure	Number of Driven Discs	Engagement Method			Release Bearing	Torsional Dampening		
										Material	Inside Diam. (in.)	Outside Diam. (in.)	Effective Area (sq. in.)			Thickness (in.)	Type	Plate Springs			Type	Make
AMERICAN MOTORS CORP. Ramblor	11	38-500	VD	AL-47	14	30	.035	1,5,3,6,2,4	HT	1215	1	8.4	9.0	55.2	.125	Cf	Ba	SSS				
		58-500	VD	AL-47	14	30	.035	1,5,3,6,2,4	Dia	1444	1	7.2	8.5	72.2	.135	Cf	Ba	SSS				
		TC-500	VD	AL-47	14	30	.035	1,5,3,6,2,4	Dia	1444	1	7.2	8.5	72.2	.135	Cf	Ba	SSS				
		58-500	VD	AL-47	14	30	.035	1,5,3,6,2,4	Dia	1444	1	7.2	8.5	72.2	.135	Cf	Ba	SSS				
CHRYSLER CORP. Chrysler	11	108-500	VD	AL-A-42	14	31	.035	1,5,3,6,2,4	SP Dia	2013	1	6.5	10.5	106.8	.125	Cf	Ba	CS				
		108-500	VD	AL-A-42	14	31	.035	1,5,3,6,2,4	SP Dia	2013	1	6.5	10.5	106.8	.125	Cf	Ba	CS				
		108-500	VD	AL-A-42	14	31	.035	1,5,3,6,2,4	SP Dia	2013	1	6.5	10.5	106.8	.125	Cf	Ba	CS				
		108-500	VD	AL-A-42	14	31	.035	1,5,3,6,2,4	SP Dia	2013	1	6.5	10.5	106.8	.125	Cf	Ba	CS				
De Soto	11	108-500	VD	AL-A-42	14	31	.035	1,5,3,6,2,4	SP Dia	2013	1	6.5	10.5	106.8	.125	Cf	Ba	CS				
		108-500	VD	AL-A-42	14	31	.035	1,5,3,6,2,4	SP Dia	2013	1	6.5	10.5	106.8	.125	Cf	Ba	CS				
		108-500	VD	AL-A-42	14	31	.035	1,5,3,6,2,4	SP Dia	2013	1	6.5	10.5	106.8	.125	Cf	Ba	CS				
		108-500	VD	AL-A-42	14	31	.035	1,5,3,6,2,4	SP Dia	2013	1	6.5	10.5	106.8	.125	Cf	Ba	CS				
Dodge	11	28-500	VD	AL-AR-31	14	31	.035	1,5,3,6,2,4	SP Dia	1280 ²	1	6.0	9.3	77.8	.114 ³	Cf	Ba	CS				
		108-500	VD	AL-AR-42	14	31	.035	1,5,3,6,2,4	SP Dia	1820	1	6.5	10.0	85.5	.125	Cf	Ba	CS				
		108-500	VD	AL-AR-42	14	31	.035	1,5,3,6,2,4	SP Dia	2104	1	6.5	11.0	123.7	.125	Cf	Ba	CS				
		108-500	VD	AL-AR-42	14	31	.035	1,5,3,6,2,4	SP Dia	2104	1	6.5	11.0	123.7	.125	Cf	Ba	CS				
Imperial	11	108-500	VD	AL-A-42	14	31	.035	1,5,3,6,2,4	SP Dia	1280 ²	1	6.0	9.3	77.8	.114 ³	Cf	Ba	CS				
		108-500	VD	AL-A-42	14	31	.035	1,5,3,6,2,4	SP Dia	1820	1	6.5	10.0	85.5	.125	Cf	Ba	CS				
		108-500	VD	AL-A-42	14	31	.035	1,5,3,6,2,4	SP Dia	2104	1	6.5	11.0	123.7	.125	Cf	Ba	CS				
		108-500	VD	AL-A-42	14	31	.035	1,5,3,6,2,4	SP Dia	2104	1	6.5	11.0	123.7	.125	Cf	Ba	CS				
Plymouth	11	108-500	VD	AL-AR-31	14	31	.035	1,5,3,6,2,4	SP Dia	1280 ²	1	6.0	9.3	77.8	.114 ³	Cf	Ba	CS				
		108-500	VD	AL-AR-42	14	31	.035	1,5,3,6,2,4	SP Dia	1820	1	6.5	10.0	85.5	.125	Cf	Ba	CS				
		108-500	VD	AL-AR-42	14	31	.035	1,5,3,6,2,4	SP Dia	2104	1	6.5	11.0	123.7	.125	Cf	Ba	CS				
		108-500	VD	AL-AR-42	14	31	.035	1,5,3,6,2,4	SP Dia	2104	1	6.5	11.0	123.7	.125	Cf	Ba	CS				
FORD MOTOR CO. Edsel	11	48-550	VD	Ch-270	18	25	.034	1,5,3,6,2,4	Gen. VR, FW, HT	1230	1	6.0	9.5	85.2	.125	SP	Ba	SS				
		48-550	VD	Ch-F-14-Y	18	25	.034	1,5,3,6,2,4	Gen. VR, FW, HT	1276	1	6.0	9.5	85.2	.125	SP	Ba	SS				
		48-550	VD	Ch-F-11-Y	18	25	.034	1,5,3,6,2,4	Gen. VR, FW, HT	1276	1	6.0	9.5	85.2	.125	SP	Ba	SS				
		48-550	VD	Ch-270	18	25	.034	1,5,3,6,2,4	Gen. VR, FW, HT	1276	1	6.0	9.5	85.2	.125	SP	Ba	SS				
Ford	11	48-550	VD	Ch-F-14-Y	18	25	.034	1,5,3,6,2,4	Gen. VR, FW, HT	1276	1	6.0	9.5	85.2	.125	SP	Ba	SS				
		48-550	VD	Ch-F-11-Y	18	25	.034	1,5,3,6,2,4	Gen. VR, FW, HT	1276	1	6.0	9.5	85.2	.125	SP	Ba	SS				
		48-550	VD	Ch-F-14-Y	18	25	.034	1,5,3,6,2,4	Gen. VR, FW, HT	1276	1	6.0	9.5	85.2	.125	SP	Ba	SS				
		48-550	VD	Ch-F-11-Y	18	25	.034	1,5,3,6,2,4	Gen. VR, FW, HT	1276	1	6.0	9.5	85.2	.125	SP	Ba	SS				
Lincoln	11	68-450	VD	Ch-F-14-Y	18	25	.032	1,5,3,6,2,4	Gen. VR, FW, HT	1802	1	6.5	10.5	106.8	.125	TD	Ba	SP				
		68-450	VD	Ch-F-14-Y	18	25	.032	1,5,3,6,2,4	Gen. VR, FW, HT	1802	1	6.5	10.5	106.8	.125	TD	Ba	SP				
		68-450	VD	Ch-F-14-Y	18	25	.032	1,5,3,6,2,4	Gen. VR, FW, HT	1802	1	6.5	10.5	106.8	.125	TD	Ba	SP				
		68-450	VD	Ch-F-11-Y	18	25	.032	1,5,3,6,2,4	Gen. VR, FW, HT	1802	1	6.5	10.5	106.8	.125	TD	Ba	SP				
Mercury	11	68-450	VD	Ch-F-14-Y	18	25	.032	1,5,3,6,2,4	Gen. VR, FW, HT	1802	1	6.5	10.5	106.8	.125	TD	Ba	SP				
		68-450	VD	Ch-F-14-Y	18	25	.032	1,5,3,6,2,4	Gen. VR, FW, HT	1802	1	6.5	10.5	106.8	.125	TD	Ba	SP				
		68-450	VD	Ch-F-14-Y	18	25	.032	1,5,3,6,2,4	Gen. VR, FW, HT	1802	1	6.5	10.5	106.8	.125	TD	Ba	SP				
		68-450	VD	Ch-F-11-Y	18	25	.032	1,5,3,6,2,4	Gen. VR, FW, HT	1802	1	6.5	10.5	106.8	.125	TD	Ba	SP				
GENERAL MOTORS CORP. Buick	11	58-400	HB	AC-44-S	14	25	.033	1,5,3,6,2,4	HT, Co. Gen. VR	1845	1	7.0	11.0	113.0	.125	SP	Ba	SP				
		58-400	HB	AC-44-S	14	25	.033	1,5,3,6,2,4	HT, Co. Gen. VR	1845	1	7.0	11.0	113.0	.125	SP	Ba	SP				
		58-400	HB	AC-44-S	14	25	.033	1,5,3,6,2,4	HT, Co. Gen. VR	1845	1	7.0	11.0	113.0	.125	SP	Ba	SP				
		58-400	HB	AC-44-S	14	25	.033	1,5,3,6,2,4	HT, Co. Gen. VR	1845	1	7.0	11.0	113.0	.125	SP	Ba	SP				
Cadillac	11	58-400	HB	AC-44-S	14	25	.033	1,5,3,6,2,4	HT, Co. Gen. VR	1845	1	7.0	11.0	113.0	.125	SP	Ba	SP				
		58-400	HB	AC-44-S	14	25	.033	1,5,3,6,2,4	HT, Co. Gen. VR	1845	1	7.0	11.0	113.0	.125	SP	Ba	SP				
		58-400	HB	AC-44-S	14	25	.033	1,5,3,6,2,4	HT, Co. Gen. VR	1845	1	7.0	11.0	113.0	.125	SP	Ba	SP				
		58-400	HB	AC-44-S	14	25	.033	1,5,3,6,2,4	HT, Co. Gen. VR	1845	1	7.0	11.0	113.0	.125	SP	Ba	SP				
Chevrolet	11	58-400	HB	AC-44-S	14	25	.033	1,5,3,6,2,4	HT, Co. Gen. VR	1845	1	7.0	11.0	113.0	.125	SP	Ba	SP				
		58-400	HB	AC-44-S	14	25	.033	1,5,3,6,2,4	HT, Co. Gen. VR	1845	1	7.0	11.0	113.0	.125	SP	Ba	SP				
		58-400	HB	AC-44-S	14	25	.033	1,5,3,6,2,4	HT, Co. Gen. VR	1845	1	7.0	11.0	113.0	.125	SP	Ba	SP				
		58-400	HB	AC-44-S	14	25	.033	1,5,3,6,2,4	HT, Co. Gen. VR	1845	1	7.0	11.0	113.0	.125	SP	Ba	SP				
Oldsmobile	11	58-400	HB	AC-44-S	14	25	.033	1,5,3,6,2,4	HT, Co. Gen. VR	1845	1	7.0	11.0	113.0	.125	SP	Ba	SP				
		58-400	HB	AC-44-S	14	25	.033	1,5,3,6,2,4	HT, Co. Gen. VR	1845	1	7.0	11.0	113.0	.125	SP	Ba	SP				
		58-400	HB	AC-44-S	14	25	.033	1,5,3,6,2,4	HT, Co. Gen. VR	1845	1	7.0	11.0	113.0	.125	SP	Ba	SP				
		58-400	HB	AC-44-S	14	25	.033	1,5,3,6,2,4	HT, Co. Gen. VR	1845	1	7.0	11.0	113.0	.125	SP	Ba	SP				
Pontiac	11	58-400	HB	AC-44-S	14	25	.033	1,5,3,6,2,4	HT, Co. Gen. VR	1845	1	7.0	11.0	113.0	.125	SP	Ba	SP				
		58-400	HB	AC-44-S	14	25	.033	1,5,3,6,2,4	HT, Co. Gen. VR	1845	1	7.0	11.0	113.0	.125	SP	Ba	SP				
		58-400	HB	AC-44-S	14	25	.033	1,5,3,6,2,4	HT, Co. Gen. VR	1845	1	7.0	11.0	113.0	.125	SP	Ba	SP				
		58-400	HB	AC-44-S	14	25	.033	1,5,3,6,2,4	HT, Co. Gen. VR	1845	1	7.0	11.0	113.0	.125	SP	Ba	SP				
STUDEBAKER-PACKARD CORP. Studebaker	11	28-550	VD	Ch-J-7	14	28	.031	1,5,3,6,2,4	DC, Co. Gen. VR, H	1100	1	5.4	8.0	55.2	.125	PS	Ba	CSW				
		48-550	VD	Ch-J-14-Y	14	28	.031	1,5,3,6,2,4	DC, Co. Gen. VR, H	1100	1	5.4	8.0	55.2	.125	PS	Ba	CSW				
		48-550	VD	Ch-J-14-Y	14	28	.031	1,5,3,6,2,4	DC, Co. Gen. VR, H	1100	1	5.4	8.0	55.2	.125	PS	Ba	CSW				
		48-550	VD	Ch-J-14-Y	14	28	.031	1,5,3,6,2,4	DC, Co. Gen. VR, H	1100	1	5.4	8.0	55.2	.125	PS	Ba	CSW				

LAMP BULBS, FUSES AND CIRCUIT BREAKERS

• U. S. PASSENGER CARS •

PASSENGER CAR MAKE AND MODEL	LAMP BULBS (Trade Number)										FUSES AND CIRCUIT BREAKERS (Trade Number)																		
	Headlamp			Headlamp Beam Indicator	Parking Light	Tail Light	Stop Light	Direction Signal			License Plate Light	Instrument Light	Ignition Lock Light	Back-Up Light	Dome Light	Clock Light	Headlamp	Headlamp Beam Indicator	Parking Light	Tail Light	Stop Light	Direction Indicator	License Plate Light	Instrument Light	Ignition Light	Back-Up Light	Dome Light	Clock	Clock Light
								Front	Rear	Indicator																			
	12	High Beam	Low and High Beam	Arrangement																									
AMERICAN MOTORS CORP.																													
Rambler.....	N 4001 ¹	5400 4002 ²	Hor	57 57	1034 1034	1034 1034	(1) (2)	(2) (2)	(1) (1)	57 57	67 67	57 57	N 1073	1003 1003	57 57	180CB 180CB	(2) (2)	120CB 120CB	10AGC 10AGC	300CB 300CB	(4) (4)	(2) (2)	(2) (2)	(2) (2)	N N	(2) (2)	N N	(2) (2)	
CHRYSLER CORP.																													
Chrysler.....	4001	4002	Hor	57	1034	1034	(1)	(2)	(1) (1)	57	67	57	N 1073	1004	1816	221-CB	(2)	150CB	10AGC	150CB	(1)	N	(1)	(1)	N	(2)	SFE6	(1)	
De Soto.....	4001	4002	Hor	57	1034	67 1034	(2)	(2)	(4) (4)	57	67	57	N 1073	1004	1816	221-CB	(2)	150CB	10AGC	150CB	(1)	N	(1)	(1)	N	(2)	SFE2	(1)	
Dodge.....	4001	4002	Hor	57	1034	1034	(1)	(1)	(1) (1)	57	67	57	N 1073	1004	N	221-CB	(2)	150CB	10AGC	150CB	(1)	N	(1)	(1)	N	(2)	SFE1	(1)	
Imperial.....	4001	4002	Hor	57	1034	1034	(1)	(2)	(1) (1)	57	67	57	N 1073	1004	N	221-CB	(2)	150CB	10AGC	150CB	(1)	N	(1)	(1)	N	(2)	SFE5	(1)	
Plymouth.....	4001	4002	Hor	57	1034	67 1034	(2)	(2)	1034 (2)	57	67	57	N 1073	1004	1816	221-CB	(2)	150CB	10AGC	150CB	(2)	N	(1)	(1)	N	(2)	SFE1	N	
FORD MOTOR CO.																													
Edsel.....	4001	4002	Hor	1445	1034	1034 ⁴	(7)	(2)	(7) (7)	57	67	57	1445	1141	1003	57	180CB	(16)	120CB	10AGC	120CB	(2)	SFE7 1/2	(2)	(2)	(2)	1AG1	(2)	
Ford.....	4001	4002	Hor	1445	1034	1034	(1)	(2)	(1) (1)	57	67	57	N 1141	1003	57	180CB	(16)	120CB	10AGC	120CB	(2)	SFE7 1/2	(2)	(2)	N	(2)	1AG1	(2)	
Lincoln.....	4001	4002	Can	1445	1034	1034	(1)	(2)	(1) (1)	1445	67	57	57	1141	1003	(1,2) 1141 ^{1,2}	180CB	(16)	120CB	10AGC	120CB	(2)	SFE5 SFE5	(2) (2)	(2) (2)	SFE7 1/2 SFE7 1/2	1AG1 1AG1	(2) (2)	
Mercury.....	4001	4002	Hor	57	1034	1034	1034	(1)	1034 (1)	1445	67	57	N 1073	1003	57	180CB	.....	120CB	10AGC	120CB	(2)	SFE7 1/2	(2)	(2)	N	SFE7 1/2	1AG2	.....
GENERAL MOTORS CORP.																													
Buick.....	4001	4002	Can	53	1034	1034	(1)	(2)	(1) (1)	53	67	57	N 1073	1004	57	150CB	(2)	10AGC 10AGC	10AGC 10AGC	10AGC 10AGC	(4) (4)	(1) (1)	(1) (1)	N N	(2) (2)	SFE20 SFE20	2AGA 2AGA	(1,2) (1,2)	
Cadillac.....	4001	4002	Hor	57	67	1034	(1)	1034 (1)	1034 (1)	53	67	57	53	1073	90	57	CB	(2)	.....	.....	.....	(2) (2)	(2) (2)	(2) (2)	N N	(2) (2)	AGC10	.....
Chevrolet.....	4001	4002	Hor	53	1034	1034	(1)	(2)	(1) (1)	57	67	57	53	1073	1004	57	150CB	(2)	AGC16 AGC10	10AGC 10AGC	(1) (1)	AGC3	(1)	AGC3	(1,2) (1,2)	AGC10	AGC16	(1,2) (1,2)
Oldsmobile.....	4001	4002	Hor	53	1034	1034	1034	1034	1034	57	67	57	53	1073	1004	57	25CB	(2)	SFE3 SFE3	25CB 25CB	(2) (2)	(1) (1)	(1) (1)	AGA3	(1,2) (1,2)	AGA3	AGA1	(1,2) (1,2)
Pontiac.....	4001	4002	Hor	57	1034	1034	(1)	(2)	(4) (4)	57	67	57	53	1073	1004	(1,2) 1004	22CB	(2)	SFE3 SFE3	22CB 22CB	(2) (2)	(2) (2)	(2) (2)	AGA3	(1,2) (1,2)	AGA3	AGA1	(1,2) (1,2)
STUDEBAKER-PACKARD CORP.																													
Studebaker.....	N 5400	S	1445	1034	1034	(1)	(2)	(1) (1)	1445	67	1445	1445	1141	1004	1445	20CB	(2)	AGC15	AGC15	(4) (4)	(2) (2)	(2) (2)	(2) (2)	N	1AG3	1AG3	(2) (2)

Can—Canted diagonally.
Hor—Horizontal.
N—None.
18—Lark only; Hawk models, 57.
S—Single.
CB—Circuit breaker.

13—Combined with instrument light.
14—Combined with back-up light.
15—Lark only; Hawk models, 57.
CB—Circuit breaker.

10—Combined with high beam of head lamp.
11—Combined with direction indicator.
12—Also 57.

3—Combined with headlamp.
4—Combined with stop light.
5—Also 5400 used on some Deluxe models.

6—Outer only; inner, 57.
7—Outer tail light.
8—Also 1445.
9—High beam only; low beam, 12CB.

ABBREVIATIONS
1—Combined with tail light.
2—Combined with parking light.

TRANSMISSIONS—Conventional and Conventional with Overdrive

PASSENGER CAR MAKE AND MODEL	TYPE		CONVENTIONAL TRANSMISSION										OVERDRIVE																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
	Manual	Manual with O.D.	Automatic	No. of Forward Speeds	Ratios			Reverse	Specify Gears	Capacity (pt.)	Lubricant				Lubricant																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
					First	Second	Third				Type Recommended	SAE Viscosity Number			Type Recommended	Separate Filter	Capacity (pt.)	Minimum Cut-In Speed (mph)	Gear Ratio (to 1)	SAE Viscosity Number																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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Std—Standard.
Y—Yes.

P—Planetary.
ST—Second and third.

NA—Not available.
Opt—Optional.

MP—Multi-purpose gear oil.
N—No or none.

ME—Mild extreme pressure gear oil.
MG—Mineral gear oil.

ABBREVIATIONS
EP—Extreme pressure gear oil.

AUTOMATIC TRANSMISSIONS

PASSENGER CARS MAKE AND MODEL	TRADE NAME	Type	Method of Selection	SELECTOR PATTERN	GEAR RATIOS				Max. Uphill Speed— (mph)	Max. Kickdown Speed— (mph)	Number of Elements	TORQUE CONVERTER		LUBRICATION
					1st Speed	2nd Speed	3rd Speed	4th Speed				Max. Ratio at Stall at Engine RPM	Type of Cooling	
AMERICAN MOTORS CORP. Rambler	8-5000	TCG	Lev	P, M, 2, 1, 2, L, R	2.40	1.47	1.00	2.00	53	69	3	2.12-1430	AC	A
	8-5910	TCG	PB	R, N, S, D ² , D ¹ , L ² , P	2.40	1.47	1.00	2.00	53	69	3	2.12-1430	AC	A
	8-5920	TCG	PB	R, N, S, D ² , D ¹ , L ² , P	2.40	1.47	1.00	2.00	53	69	3	2.12-1700	WC	A
	8-5980	TCG	PB	R, N, S, D ² , D ¹ , L ² , P	2.40	1.47	1.00	2.00	50	68	3	2.12-1660	WC	A
CHRYSLER CORP. Chrysler	8-MC1	TCG	PB	R, 1, 3, N, 2, 4, D ²	2.45	1.45	1.00	2.20	75	30	3	2.20-1875	WC	A
	8-MC2	TCG	PB	R, 1, 3, N, 2, 4, D ²	2.45	1.45	1.00	2.20	75	30	3	2.20-1860	WC	A
	8-MC3	TCG	PB	R, 1, 3, N, 2, 4, D ²	2.45	1.45	1.00	2.20	80	35	3	2.20-2000	WC	A
	8-MC3, 300-E	TCG	PB	R, 1, 3, N, 2, 4, D ²	2.45	1.45	1.00	2.20	80	35	3	2.20-2000	WC	A
Dodge	8-MC1	TCG	PB	R, 1, 3, N, 2, 4, D ²	1.72	1.00	1.00	2.39	60	60	3	2.20-1810	WC	A
	8-MC2	TCG	PB	R, 1, 3, N, 2, 4, D ²	2.45	1.45	1.00	2.20	70	60	3	2.20-1810	WC	A
	8-MC3	TCG	PB	R, 1, 3, N, 2, 4, D ²	2.45	1.45	1.00	2.20	70	60	3	2.20-1810	WC	A
	8-MC3, 300-E	TCG	PB	R, 1, 3, N, 2, 4, D ²	2.45	1.45	1.00	2.20	70	60	3	2.20-1810	WC	A
Dodge	8-MC1	TCG	PB	R, 1, 3, N, 2, 4, D ²	1.72	1.00	1.00	2.39	60	60	3	2.20-1810	WC	A
	8-MC2	TCG	PB	R, 1, 3, N, 2, 4, D ²	2.45	1.45	1.00	2.20	70	60	3	2.20-1810	WC	A
	8-MC3	TCG	PB	R, 1, 3, N, 2, 4, D ²	2.45	1.45	1.00	2.20	70	60	3	2.20-1810	WC	A
	8-MC3, 300-E	TCG	PB	R, 1, 3, N, 2, 4, D ²	2.45	1.45	1.00	2.20	70	60	3	2.20-1810	WC	A
Ford Motor Co. Edsel	8-MC1	TCG	PB	R, 1, 3, N, 2, 4, D ²	1.72	1.00	1.00	2.39	60	60	3	2.20-1810	WC	A
	8-MC2	TCG	PB	R, 1, 3, N, 2, 4, D ²	2.45	1.45	1.00	2.20	70	60	3	2.20-1810	WC	A
	8-MC3	TCG	PB	R, 1, 3, N, 2, 4, D ²	2.45	1.45	1.00	2.20	70	60	3	2.20-1810	WC	A
	8-MC3, 300-E	TCG	PB	R, 1, 3, N, 2, 4, D ²	2.45	1.45	1.00	2.20	70	60	3	2.20-1810	WC	A
Ford Motor Co. Ford	8-MC1	TCG	PB	R, 1, 3, N, 2, 4, D ²	1.72	1.00	1.00	2.39	60	60	3	2.20-1810	WC	A
	8-MC2	TCG	PB	R, 1, 3, N, 2, 4, D ²	2.45	1.45	1.00	2.20	70	60	3	2.20-1810	WC	A
	8-MC3	TCG	PB	R, 1, 3, N, 2, 4, D ²	2.45	1.45	1.00	2.20	70	60	3	2.20-1810	WC	A
	8-MC3, 300-E	TCG	PB	R, 1, 3, N, 2, 4, D ²	2.45	1.45	1.00	2.20	70	60	3	2.20-1810	WC	A
Ford Motor Co. Lincoln	8-MC1	TCG	PB	R, 1, 3, N, 2, 4, D ²	1.72	1.00	1.00	2.39	60	60	3	2.20-1810	WC	A
	8-MC2	TCG	PB	R, 1, 3, N, 2, 4, D ²	2.45	1.45	1.00	2.20	70	60	3	2.20-1810	WC	A
	8-MC3	TCG	PB	R, 1, 3, N, 2, 4, D ²	2.45	1.45	1.00	2.20	70	60	3	2.20-1810	WC	A
	8-MC3, 300-E	TCG	PB	R, 1, 3, N, 2, 4, D ²	2.45	1.45	1.00	2.20	70	60	3	2.20-1810	WC	A
Ford Motor Co. Mercury	8-MC1	TCG	PB	R, 1, 3, N, 2, 4, D ²	1.72	1.00	1.00	2.39	60	60	3	2.20-1810	WC	A
	8-MC2	TCG	PB	R, 1, 3, N, 2, 4, D ²	2.45	1.45	1.00	2.20	70	60	3	2.20-1810	WC	A
	8-MC3	TCG	PB	R, 1, 3, N, 2, 4, D ²	2.45	1.45	1.00	2.20	70	60	3	2.20-1810	WC	A
	8-MC3, 300-E	TCG	PB	R, 1, 3, N, 2, 4, D ²	2.45	1.45	1.00	2.20	70	60	3	2.20-1810	WC	A
General Motors Corp. Buick	8-MC1	TCG	PB	R, 1, 3, N, 2, 4, D ²	1.72	1.00	1.00	2.39	60	60	3	2.20-1810	WC	A
	8-MC2	TCG	PB	R, 1, 3, N, 2, 4, D ²	2.45	1.45	1.00	2.20	70	60	3	2.20-1810	WC	A
	8-MC3	TCG	PB	R, 1, 3, N, 2, 4, D ²	2.45	1.45	1.00	2.20	70	60	3	2.20-1810	WC	A
	8-MC3, 300-E	TCG	PB	R, 1, 3, N, 2, 4, D ²	2.45	1.45	1.00	2.20	70	60	3	2.20-1810	WC	A
General Motors Corp. Cadillac	8-MC1	TCG	PB	R, 1, 3, N, 2, 4, D ²	1.72	1.00	1.00	2.39	60	60	3	2.20-1810	WC	A
	8-MC2	TCG	PB	R, 1, 3, N, 2, 4, D ²	2.45	1.45	1.00	2.20	70	60	3	2.20-1810	WC	A
	8-MC3	TCG	PB	R, 1, 3, N, 2, 4, D ²	2.45	1.45	1.00	2.20	70	60	3	2.20-1810	WC	A
	8-MC3, 300-E	TCG	PB	R, 1, 3, N, 2, 4, D ²	2.45	1.45	1.00	2.20	70	60	3	2.20-1810	WC	A
General Motors Corp. Chevrolet	8-MC1	TCG	PB	R, 1, 3, N, 2, 4, D ²	1.72	1.00	1.00	2.39	60	60	3	2.20-1810	WC	A
	8-MC2	TCG	PB	R, 1, 3, N, 2, 4, D ²	2.45	1.45	1.00	2.20	70	60	3	2.20-1810	WC	A
	8-MC3	TCG	PB	R, 1, 3, N, 2, 4, D ²	2.45	1.45	1.00	2.20	70	60	3	2.20-1810	WC	A
	8-MC3, 300-E	TCG	PB	R, 1, 3, N, 2, 4, D ²	2.45	1.45	1.00	2.20	70	60	3	2.20-1810	WC	A
General Motors Corp. Oldsmobile	8-MC1	TCG	PB	R, 1, 3, N, 2, 4, D ²	1.72	1.00	1.00	2.39	60	60	3	2.20-1810	WC	A
	8-MC2	TCG	PB	R, 1, 3, N, 2, 4, D ²	2.45	1.45	1.00	2.20	70	60	3	2.20-1810	WC	A
	8-MC3	TCG	PB	R, 1, 3, N, 2, 4, D ²	2.45	1.45	1.00	2.20	70	60	3	2.20-1810	WC	A
	8-MC3, 300-E	TCG	PB	R, 1, 3, N, 2, 4, D ²	2.45	1.45	1.00	2.20	70	60	3	2.20-1810	WC	A
General Motors Corp. Pontiac	8-MC1	TCG	PB	R, 1, 3, N, 2, 4, D ²	1.72	1.00	1.00	2.39	60	60	3	2.20-1810	WC	A
	8-MC2	TCG	PB	R, 1, 3, N, 2, 4, D ²	2.45	1.45	1.00	2.20	70	60	3	2.20-1810	WC	A
	8-MC3	TCG	PB	R, 1, 3, N, 2, 4, D ²	2.45	1.45	1.00	2.20	70	60	3	2.20-1810	WC	A
	8-MC3, 300-E	TCG	PB	R, 1, 3, N, 2, 4, D ²	2.45	1.45	1.00	2.20	70	60	3	2.20-1810	WC	A
Studebaker-Packard Corp. Studebaker	8-MC1	TCG	PB	R, 1, 3, N, 2, 4, D ²	1.72	1.00	1.00	2.39	60	60	3	2.20-1810	WC	A
	8-MC2	TCG	PB	R, 1, 3, N, 2, 4, D ²	2.45	1.45	1.00	2.20	70	60	3	2.20-1810	WC	A
	8-MC3	TCG	PB	R, 1, 3, N, 2, 4, D ²	2.45	1.45	1.00	2.20	70	60	3	2.20-1810	WC	A
	8-MC3, 300-E	TCG	PB	R, 1, 3, N, 2, 4, D ²	2.45	1.45	1.00	2.20	70	60	3	2.20-1810	WC	A

NS—Neutral and/or start.
PB—Park.
R—Reverse gear.
S—Super.

TCG—Torque converter with planetary
gears.
WC—Water cooled.

G or GR—Grade retarder.
L or Lo or LO—Low range.
N—Neutral.
No—None.

A—Automatic transmission fluid, type
A.
AC—Air cooled.
D or Dr or DR—Drive range.
FCG—Fluid coupling with gears.

1—Low speed only.
2—Transmission goes through first and
third speeds.
3—Transmission goes through first, sec-
ond, third and fourth speeds.

ABBREVIATIONS
1—Transmission goes through second and
third speeds.
2—Transmission goes through first, sec-
ond, third and fourth speeds.

PROPELLER SHAFT, AND REAR AXLE

PROPELLER SHAFT										REAR AXLE														
Number Used	Type	Intermediate Bearing		Universals			Type	Drive and Torque	Type	Clear Type	Drive Pinion Offset	Number of Differential Pinions	Standard Ratios			Gearing			Ring Gear		Pinion Adjustment	Pinion Bearing Adjustment	Wheel Bearing Type	Lubricant Capacity (Pl.)
		Type	Lubrication	Make	Number Used	Type							Lubrication	Automatic (to -1)	Overdrive (to -1)	Manual (to -1)	No. of Teeth - Ring and Pinion	Overdrive	Manual (to -1)	Pitch Diameter (in.)					Outside Diameter (in.)
15	1	Ex	N	P	M-J	2	Cr	AF	P	RS	Hy	1.50	3.31	3.78	3.31	13-43	8.34	7.94	CR	CR	3			
		TT	AF	P	M-J	1	Cr	AF	P	RS	Hy	1.50	3.15	4.10	3.54	10-41	7.94	7.94	CR	CR	4			
		TT	AF	P	M-J	1	Cr	AF	P	RS	Hy	1.50	3.15	3.54	3.54	11-38	8.81	8.81	CR	CR	4			
AMERICAN MOTORS CORP.	1	Ex	N	P	Ovn	2	BT1	AF	P	RS	Hy	1.50	2.83	N	3.54	14-41	8.75	8.75	SS	SS	3 1/2			
		TT	N	P	Ovn	2	BT1	AF	P	RS	Hy	1.50	2.83	N	N	14-41	8.75	8.75	SS	SS	3 1/2			
		TT	N	P	Ovn	2	BT1	AF	P	RS	Hy	1.50	3.31	N	3.54	13-43	8.75	8.75	SS	SS	3 1/2			
		TT	N	P	Ovn	2	BT1	AF	P	RS	Hy	1.50	3.31	N	3.54	13-43	8.75	8.75	SS	SS	3 1/2			
	1	Ex	N	P	Ovn	2	BT1	AF	P	RS	Hy	1.50	2.83	N	3.54	13-43	8.75	8.75	SS	SS	3 1/2			
		TT	N	P	Ovn	2	BT1	AF	P	RS	Hy	1.50	2.83	N	N	14-41	8.75	8.75	SS	SS	3 1/2			
		TT	N	P	Ovn	2	BT1	AF	P	RS	Hy	1.50	3.31	N	3.54	13-43	8.75	8.75	SS	SS	3 1/2			
		TT	N	P	Ovn	2	BT1	AF	P	RS	Hy	1.50	3.31	N	3.54	13-43	8.75	8.75	SS	SS	3 1/2			
	1	Ex	N	P	Ovn	2	BT1	AF	P	RS	Hy	1.50	2.83	N	3.54	13-43	8.75	8.75	SS	SS	3 1/2			
		TT	N	P	Ovn	2	BT1	AF	P	RS	Hy	1.50	2.83	N	N	14-41	8.75	8.75	SS	SS	3 1/2			
		TT	N	P	Ovn	2	BT1	AF	P	RS	Hy	1.50	3.31	N	3.54	13-43	8.75	8.75	SS	SS	3 1/2			
		TT	N	P	Ovn	2	BT1	AF	P	RS	Hy	1.50	3.31	N	3.54	13-43	8.75	8.75	SS	SS	3 1/2			
CHRYSLER CORP.	1	Ex	N	P	Ovn	2	BT1	AF	P	RS	Hy	1.50	2.83	N	3.54	14-41	8.75	8.75	SS	SS	3 1/2			
		TT	N	P	Ovn	2	BT1	AF	P	RS	Hy	1.50	2.83	N	N	14-41	8.75	8.75	SS	SS	3 1/2			
		TT	N	P	Ovn	2	BT1	AF	P	RS	Hy	1.50	3.31	N	3.54	13-43	8.75	8.75	SS	SS	3 1/2			
		TT	N	P	Ovn	2	BT1	AF	P	RS	Hy	1.50	3.31	N	3.54	13-43	8.75	8.75	SS	SS	3 1/2			
	1	Ex	N	P	Ovn	2	BT1	AF	P	RS	Hy	1.50	2.83	N	3.54	13-43	8.75	8.75	SS	SS	3 1/2			
		TT	N	P	Ovn	2	BT1	AF	P	RS	Hy	1.50	2.83	N	N	14-41	8.75	8.75	SS	SS	3 1/2			
		TT	N	P	Ovn	2	BT1	AF	P	RS	Hy	1.50	3.31	N	3.54	13-43	8.75	8.75	SS	SS	3 1/2			
		TT	N	P	Ovn	2	BT1	AF	P	RS	Hy	1.50	3.31	N	3.54	13-43	8.75	8.75	SS	SS	3 1/2			
	1	Ex	N	P	Ovn	2	BT1	AF	P	RS	Hy	1.50	2.83	N	3.54	13-43	8.75	8.75	SS	SS	3 1/2			
		TT	N	P	Ovn	2	BT1	AF	P	RS	Hy	1.50	2.83	N	N	14-41	8.75	8.75	SS	SS	3 1/2			
		TT	N	P	Ovn	2	BT1	AF	P	RS	Hy	1.50	3.31	N	3.54	13-43	8.75	8.75	SS	SS	3 1/2			
		TT	N	P	Ovn	2	BT1	AF	P	RS	Hy	1.50	3.31	N	3.54	13-43	8.75	8.75	SS	SS	3 1/2			
FORD MOTOR CO.	1	Ex	N	P	Spl	2	Cr	AF	P	RS	Hy	2.25	3.10	N	3.56	17-46	8.75	8.75	Sh	Sh	4 1/2			
		TT	N	P	Spl	2	Cr	AF	P	RS	Hy	2.25	2.81	N	3.56	17-46	8.75	8.75	Sh	Sh	4 1/2			
		TT	N	P	S-M	2	Cr	AF	P	RS	Hy	2.25	3.10	N	3.70	18-55	8.75	8.75	Sh	Sh	4 1/2			
		TT	N	P	S-M	2	Cr	AF	P	RS	Hy	2.25	3.10	N	3.70	18-55	8.75	8.75	Sh	Sh	4 1/2			
	1	Ex	N	P	Spl	2	Cr	NR	F	TA	Hy	2.25	2.81	N	3.70	18-55	8.75	8.75	Sh	Sh	4 1/2			
		TT	N	P	Spl	2	Cr	NR	F	TA	Hy	2.25	2.81	N	3.70	18-55	8.75	8.75	Sh	Sh	4 1/2			
		TT	N	P	Spl	2	Cr	NR	F	TA	Hy	2.25	2.81	N	3.70	18-55	8.75	8.75	Sh	Sh	4 1/2			
		TT	N	P	Spl	2	Cr	NR	F	TA	Hy	2.25	2.81	N	3.70	18-55	8.75	8.75	Sh	Sh	4 1/2			
	1	Ex	N	P	Spl	2	Cr	NR	F	TA	Hy	2.25	2.71	N	3.56	17-46	8.75	8.75	Sh	Sh	4 1/2			
		TT	N	P	Spl	2	Cr	NR	F	TA	Hy	2.25	2.71	N	3.56	17-46	8.75	8.75	Sh	Sh	4 1/2			
		TT	N	P	Spl	2	Cr	NR	F	TA	Hy	2.25	2.71	N	3.56	17-46	8.75	8.75	Sh	Sh	4 1/2			
		TT	N	P	Spl	2	Cr	NR	F	TA	Hy	2.25	2.71	N	3.56	17-46	8.75	8.75	Sh	Sh	4 1/2			
GENERAL MOTORS CORP.	2	TT	Ba	P	Sag	3	Cr	P14	Tr-5	Hy	1.75	3.075	N	3.58	16-47	8.38	8.38	Sh	Sh	8 1/2				
		TT	AF	P	M-S	3	Cr	CT	No	Hy	1.75	3.275	N	N	16-47	8.38	8.38	Sh	Sh	8 1/2				
		TT	AF	P	M-S	3	Cr	CT	No	Hy	1.75	3.275	N	N	16-47	8.38	8.38	Sh	Sh	8 1/2				
		TT	AF	P	M-S	3	Cr	CT	No	Hy	1.75	3.275	N	N	16-47	8.38	8.38	Sh	Sh	8 1/2				
	2	Ex	AF	P	Ovn	3	YS	AF	P	UL	Hy	1.50	3.36	4.11	3.55	11-37	8.38	8.38	Sh	Sh	4			
		Ex	AF	P	Ovn	3	YS	AF	P	UL	Hy	1.50	3.36	4.11	3.55	11-37	8.38	8.38	Sh	Sh	4			
		Ex	AF	P	Ovn	3	YS	AF	P	UL	Hy	1.50	3.36	4.11	3.55	11-37	8.38	8.38	Sh	Sh	4			
		Ex	AF	P	Ovn	3	YS	AF	P	UL	Hy	1.50	3.36	4.11	3.55	11-37	8.38	8.38	Sh	Sh	4			
	2	Ex	AF	P	S-S	3	Cr	AF	P	SR	Hy	1.50	3.65	N	3.70	9-32	8.25	8.25	Sh	Sh	4			
		Ex	AF	P	S-S	3	Cr	AF	P	SR	Hy	1.50	3.65	N	3.70	9-32	8.25	8.25	Sh	Sh	4			
		Ex	AF	P	S-S	3	Cr	AF	P	SR	Hy	1.50	3.65	N	3.70	9-32	8.25	8.25	Sh	Sh	4			
		Ex	AF	P	S-S	3	Cr	AF	P	SR	Hy	1.50	3.65	N	3.70	9-32	8.25	8.25	Sh	Sh	4			
2	Ex	AF	P	Sag	3	Cr	AF	P	TA	Hy	1.75	3.42	N	3.23	13-40	8.25	8.25	Sh	Sh	8 1/2				
	Ex	Ba	P	Sag	3	Cr	AF	P	TA	Hy	1.75	3.42	N	3.23	13-40	8.25	8.25	Sh	Sh	8 1/2				
	Ex	Ba	P	Sag	3	Cr	AF	P	TA	Hy	1.75	3.42	N	3.23	13-40	8.25	8.25	Sh	Sh	8 1/2				
	Ex	Ba	P	Sag	3	Cr	AF	P	TA	Hy	1.75	3.42	N	3.23	13-40	8.25	8.25	Sh	Sh	8 1/2				
STUDEBAKER-PACKARD CORP.	1	Ex	N	P	Spl	2	Cr	AF	P	RS	Hy	1.50	3.04	3.73	3.54	13-46	7.75	7.54	Sh	Sh	2 1/2			
		Ex	N	P	Spl	2	Cr	AF	P	RS	Hy	1.50	3.04	3.73	3.54	13-46	7.75	7.54	Sh	Sh	2 1/2			
		Ex	N	P	Spl	2	Cr	AF	P	RS	Hy	1.50	3.04	3.73	3.54	13-46	7.75	7.54	Sh	Sh	2 1/2			
		Ex	N	P	Spl	2	Cr	AF	P	RS	Hy	1.50	3.04	3.73	3.54	13-46	7.75	7.54	Sh	Sh	2 1/2			

S-S—Saginaw and Spicer.
TA—Trailing arms.
Tas—Trailing arms and springs.
Tr—By transmission.
TR—Tapered roller.
TT—Torque tube.
UL—Upper and lower control arms.
Y—Yoke and spider (trunion).

RS—Rear springs.
Sag—Sagging.
SF—Semi-floating.
Sh—Shims.
S-M—Spacer or Mechanica.
Sol—Spacer.
SR—Rear springs and radius rods.
SS—Solid shim (washer).

Hy-Hypoid.
LJ-Links.
M-S-Mechanics or Saginaw.
M-U-Mechanics or Universal.
N-None.
No-Needle.
NR-Needle roller.
P-Prepacked.

BT—Ball and trunion.
CF—Companion flange nut.
CR—Cross.
C-R—Cone and roller.
CS—Collapsible spacer.
CT—Cross and trunion.
Ex—Exposed.
F—Fitting.

- Twin turbine only; triple turbine, 2.78.
- El Dorado models, 3.21 (14-45).
- Deluxe models only; Regal Deluxe models, 4.10.
- Deluxe models only; Regal Deluxe models, 3.73.

RAF—Anti-friction.

Ball—Ball.

ABBREVIATIONS

1—Front only; rear, cross.
2—Power Flite only; Torque Flite, 2.93 (14-11).
3—Front only; rear, Saginaw or Spicer.
4—Front only; rear, anti-friction.
5—Front only; rear, track-tracked.

ABBREVIATIONS

1.—Front only; rear, cross.
2.—Power Flite only; Torque Flite, 2.93
(14-41).
3.—Front only; rear, Saginaw or Spicer.
4.—Front only; rear, anti-friction.
5.—Front only; rear, trackless.

TIRES AND BRAKES

STANDARD TIRES			SERVICE BRAKES										PARKING BRAKES									
PASSENGER CAR MAKE AND MODEL	Rev. per Mile at 30 mph	Tire Size	Type	Power Brake Type	Effective Area (sq. in.)	Percent Brake Effectiveness—Front	Drum		Brake Lining								Wheel Cylinder Bore	Type of Control	Location of Control	Operates on		
							Front	Rear	Front Shoe		Rear Shoe		Front Wheel		Rear Wheel						Segments per Shoe	Material
									Size (length-width-thickness)		Size (length-width-thickness)		Front Wheel		Rear Wheel							
16																						
AMERICAN MOTORS CORP.																						
Thunderbolt	780.0	8.90/15	Hyd	N	230.0	60.2	CIA	9	9	MA	7 1/2x25 1/2	8 1/2x25 1/2	MA	8 1/2x25 1/2	1	1	1	1				
8-5810	783.0	8.40/15	Hyd	Vac	231.0	60.2	CIA	9	9	MA	8 1/2x25 1/2	8 1/2x25 1/2	MA	8 1/2x25 1/2	1	1	1	1				
8-5820	778.0	7.50/15	Hyd	Vac	231.0	62.4	CIS	10	10	MA	8 1/2x25 1/2	8 1/2x25 1/2	MA	8 1/2x25 1/2	1	1	1	1				
8-5880	766.0	8.00/14	Hyd	Vac	231.0	62.4	CIS	10	10	MA	8 1/2x25 1/2	8 1/2x25 1/2	MA	8 1/2x25 1/2	1	1	1	1				
CHRYSLER CORP.																						
Chrysler	780.0	8.90/14	Hyd	Vac	230.0	60.0	Gen	11	11	Bon	11 1/2x25 1/2	11 1/2x25 1/2	MA	11 1/2x25 1/2	1	1	1	1				
8-MC1	782.0	8.90/14	Hyd	Vac	231.0	60.0	Gen	12	12	Bon	12 1/2x25 1/2	12 1/2x25 1/2	MA	12 1/2x25 1/2	1	1	1	1				
8-MC3	737.0	8.00/14	HV	Vac	231.0	60.0	Gen	12	12	Bon	12 1/2x25 1/2	12 1/2x25 1/2	MA	12 1/2x25 1/2	1	1	1	1				
8-MC5	742.0	8.00/14	HV	Vac	231.0	60.0	Gen	12	12	Bon	12 1/2x25 1/2	12 1/2x25 1/2	MA	12 1/2x25 1/2	1	1	1	1				
De Soto	760.0	8.00/14	Hyd	Vac	231.0	60.0	Gen	11	11	Bon	11 1/2x25 1/2	11 1/2x25 1/2	MA	11 1/2x25 1/2	1	1	1	1				
8-MS1	760.0	8.00/14	Hyd	Vac	231.0	60.0	Gen	12	12	Bon	12 1/2x25 1/2	12 1/2x25 1/2	MA	12 1/2x25 1/2	1	1	1	1				
8-MS2	747.0	8.50/14	HV	Vac	231.0	60.0	Gen	11	11	Bon	11 1/2x25 1/2	11 1/2x25 1/2	MA	11 1/2x25 1/2	1	1	1	1				
8-MS3	747.0	8.50/14	HV	Vac	231.0	60.0	Gen	12	12	Bon	12 1/2x25 1/2	12 1/2x25 1/2	MA	12 1/2x25 1/2	1	1	1	1				
Dodge	778.0	7.50/14	Hyd	Vac	207.0	60.0	Gen	11	11	Bon	11 1/2x25 1/2	11 1/2x25 1/2	MA	11 1/2x25 1/2	1	1	1	1				
8-MD1, 8-MD2	778.0	7.50/14	Hyd	Vac	207.0	60.0	Gen	12	12	Bon	12 1/2x25 1/2	12 1/2x25 1/2	MA	12 1/2x25 1/2	1	1	1	1				
8-MD3	780.0	8.00/14	Hyd	Vac	207.0	60.0	Gen	11	11	Bon	11 1/2x25 1/2	11 1/2x25 1/2	MA	11 1/2x25 1/2	1	1	1	1				
Imperial	780.0	8.00/14	Hyd	Vac	207.0	60.0	Gen	12	12	Bon	12 1/2x25 1/2	12 1/2x25 1/2	MA	12 1/2x25 1/2	1	1	1	1				
Plymouth	775.0	7.50/14	Hyd	Vac	184.0	60.0	Gen	11	11	Bon	11 1/2x25 1/2	11 1/2x25 1/2	MA	11 1/2x25 1/2	1	1	1	1				
8-MP1, 8-MP2	775.0	7.50/14	Hyd	Vac	184.0	60.0	Gen	11	11	Bon	11 1/2x25 1/2	11 1/2x25 1/2	MA	11 1/2x25 1/2	1	1	1	1				
FORD MOTOR CO.																						
Edsel	764.0	7.50/14	Hyd	Vac	167.5	55.5	Gen	11	11	Riv	9 1/2x25 1/2	9 1/2x25 1/2	MA	12x25 1/2	1	1 1/2	1	1 1/2				
8-Ranger	770.0	8.00/14	Hyd	Vac	167.1	55.5	Gen	11	11	Riv	9 1/2x25 1/2	9 1/2x25 1/2	MA	12x25 1/2	1	1 1/2	1	1 1/2				
8-Corair	770.0	8.00/14	Hyd	Vac	167.1	55.5	Gen	11	11	Riv	9 1/2x25 1/2	9 1/2x25 1/2	MA	12x25 1/2	1	1 1/2	1	1 1/2				
Ford, 8, 8-Custom	784.0	7.50/14	Hyd	Vac	167.1	55.5	Gen	11	11	Riv	9 1/2x25 1/2	9 1/2x25 1/2	MA	12x25 1/2	1	1 1/2	1	1 1/2				
8-Continental	772.0	8.00/14	Hyd	Vac	167.1	55.5	Gen	11	11	Riv	9 1/2x25 1/2	9 1/2x25 1/2	MA	12x25 1/2	1	1 1/2	1	1 1/2				
8-Thunderbird	772.0	8.00/14	Hyd	Vac	167.1	55.5	Gen	11	11	Riv	9 1/2x25 1/2	9 1/2x25 1/2	MA	12x25 1/2	1	1 1/2	1	1 1/2				
8-Lincoln, Premier	772.0	8.00/14	Hyd	Vac	167.1	55.5	Gen	11	11	Riv	9 1/2x25 1/2	9 1/2x25 1/2	MA	12x25 1/2	1	1 1/2	1	1 1/2				
8-Continental	772.0	8.00/14	HV	Vac	262.0	57.7	Gen	11	11	Riv	9 1/2x25 1/2	9 1/2x25 1/2	MA	11 1/2x25 1/2	1	1 1/2	1	1 1/2				
8-Mercury	764.0	8.00/14	Hyd	Vac	205.0	57.7	Gen	11	11	Riv	9 1/2x25 1/2	9 1/2x25 1/2	MA	11 1/2x25 1/2	1	1 1/2	1	1 1/2				
8-Montclair	747.0	8.50/14	Hyd	Vac	205.0	57.7	Gen	11	11	Riv	9 1/2x25 1/2	9 1/2x25 1/2	MA	11 1/2x25 1/2	1	1 1/2	1	1 1/2				
8-Park Lane	747.0	8.50/14	HV	Vac	205.0	57.7	Gen	11	11	Riv	9 1/2x25 1/2	9 1/2x25 1/2	MA	11 1/2x25 1/2	1	1 1/2	1	1 1/2				
GENERAL MOTORS CORP.																						
Buick	735.0	7.50/15	Hyd	Vac	160.0	55.9	AlC3	12 1/2	12 1/2	Riv	10 1/2x25 1/2	10 1/2x25 1/2	MA	12 1/2x25 1/2	1	1 1/2	1	1 1/2				
8-4400, 4600	735.0	7.50/15	Hyd	Vac	160.0	55.9	AlC3	12 1/2	12 1/2	Riv	10 1/2x25 1/2	10 1/2x25 1/2	MA	12 1/2x25 1/2	1	1 1/2	1	1 1/2				
8-4700, 4800	735.0	7.50/15	Hyd	Vac	160.0	55.9	AlC3	12 1/2	12 1/2	Riv	10 1/2x25 1/2	10 1/2x25 1/2	MA	12 1/2x25 1/2	1	1 1/2	1	1 1/2				
8-50, 62	715.0	8.00/15	HV	Vac	210.3	57.7	Gen	12	12	Riv	10 1/2x25 1/2	10 1/2x25 1/2	MA	12 1/2x25 1/2	2	2	2	2				
8-50, 62	715.0	8.00/15	HV	Vac	210.3	57.7	Gen	12	12	Riv	10 1/2x25 1/2	10 1/2x25 1/2	MA	12 1/2x25 1/2	2	2	2	2				
8-50, 62	715.0	8.00/15	HV	Vac	210.3	57.7	Gen	12	12	Riv	10 1/2x25 1/2	10 1/2x25 1/2	MA	12 1/2x25 1/2	2	2	2	2				
Cadillac	780.0	8.00/15	Hyd	Vac	233.7	57.7	Gen	12	12	Riv	12 1/2x25 1/2	12 1/2x25 1/2	MA	12 1/2x25 1/2	1	1 1/2	1	1 1/2				
Chevrolet	764.0	7.50/14	Hyd	N	185.5	56.0	Gen	11	11	Bon	9 1/2x25 1/2	9 1/2x25 1/2	MA	11 1/2x25 1/2	1	1 1/2	1	1 1/2				
8-1100, 1400, 1700	764.0	7.50/14	Hyd	N	185.5	56.0	Gen	11	11	Bon	9 1/2x25 1/2	9 1/2x25 1/2	MA	11 1/2x25 1/2	1	1 1/2	1	1 1/2				
8-1200, 1600, 1800	764.0	7.50/14	Hyd	N	185.5	56.0	Gen	11	11	Bon	9 1/2x25 1/2	9 1/2x25 1/2	MA	11 1/2x25 1/2	1	1 1/2	1	1 1/2				
8-1600, 1800	764.0	7.50/14	Hyd	N	185.5	56.0	Gen	11	11	Bon	9 1/2x25 1/2	9 1/2x25 1/2	MA	11 1/2x25 1/2	1	1 1/2	1	1 1/2				
8-1600, 1800	764.0	7.50/14	Hyd	N	185.5	56.0	Gen	11	11	Bon	9 1/2x25 1/2	9 1/2x25 1/2	MA	11 1/2x25 1/2	1	1 1/2	1	1 1/2				
Oldsmobile	735.0	8.50/14	Hyd	Vac	196.8	56.0	Gen	11	11	Riv	9 1/2x25 1/2	9 1/2x25 1/2	MA	12 1/2x25 1/2	1	1 1/2	1	1 1/2				
8-Super 88	715.0	8.00/14	Hyd	Vac	196.8	56.0	Gen	11	11	Riv	9 1/2x25 1/2	9 1/2x25 1/2	MA	12 1/2x25 1/2	1	1 1/2	1	1 1/2				
8-Super 88	715.0	8.00/14	Hyd	Vac	196.8	56.0	Gen	11	11	Riv	9 1/2x25 1/2	9 1/2x25 1/2	MA	12 1/2x25 1/2	1	1 1/2	1	1 1/2				
8-Super 88	715.0	8.00/14	Hyd	Vac	196.8	56.0	Gen	11	11	Riv	9 1/2x25 1/2	9 1/2x25 1/2	MA	12 1/2x25 1/2	1	1 1/2	1	1 1/2				
8-Super 88	715.0	8.00/14	Hyd	Vac	196.8	56.0	Gen	11	11	Riv	9 1/2x25 1/2	9 1/2x25 1/2	MA	12 1/2x25 1/2	1	1 1/2	1	1 1/2				
Pontiac	754.0	8.00/14	Hyd	Vac	170.0	56.0	Gen	11	11	Riv	9 1/2x25 1/2	9 1/2x25 1/2	MA	12 1/2x25 1/2	1	1 1/2	1	1 1/2				
8-981, 984, 987, 988	754.0	8.00/14	Hyd	Vac	170.0	56.0	Gen	11	11	Riv	9 1/2x25 1/2	9 1/2x25 1/2	MA	12 1/2x25 1/2	1	1 1/2	1	1 1/2				
STUDEBAKER-PACKARD CORP.																						
Studebaker	765.0	8.90/15	Hyd	Vac	146.4	62.0	Gen	10	9	Riv	8 1/2x25 1/2	8 1/2x25 1/2	MA	10 1/2x25 1/2	1	1 1/2	1	1 1/2				
8-985	770.0	8.40/15	Hyd	Vac	172.8	62.0	Gen	11	10	Riv	8 1/2x25 1/2	8 1/2x25 1/2	MA	10 1/2x25 1/2	1	1 1/2	1	1 1/2				
8-985 Silver Hawk	770.0	8.40/15	Hyd	Vac	146.4	62.0	Gen	11	9	Riv	8 1/2x25 1/2	8 1/2x25 1/2	MA	10 1/2x25 1/2	1	1 1/2	1	1 1/2				
8-985 Silver Hawk	753.0	6.70/15	Hyd	Vac	172.8	62.0	Gen	10	9	Riv	8 1/2x25 1/2	8 1/2x25 1/2	MA	10 1/2x25 1/2	1	1 1/2	1	1 1/2				
8-985 Silver Hawk	753.0	6.70/15	Hyd	Vac	172.8	62.0	Gen	10	9	Riv	8 1/2x25 1/2	8 1/2x25 1/2	MA	10 1/2x25 1/2	1	1 1/2	1	1 1/2				

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PASSENGER CAR MAKE AND MODEL	FRONT SUSPENSION										STEERING										
	Spring					Shock Absorbers					Turning Diameter					Mechanical					
	Size		Rate at Wheel (lb. per in.)	Spring Rate (lb. per in.)	Design Load (lb. per design height)	Make	Type	Piston Diam. (in.)	Stabilizer—Type	Type	Wheel Diameter	Wall to Wall (outside front)	Curb to Curb (outside front)	Outside Wheel Angle at 20 Degrees	Type	Make	Gear	Over-All (to-1)	Type	Make	Type
	Col. Height or Bar Length	Col. L. Dia. or Bar Diameter																			
AMERICAN MOTORS CORP.	8-9800 Rambler	10 1/8	3 1/2	110	109	Mon	D	1	N	Mec	17	37 1/4	38 7/8	17.7	WTR	Gem	20.4	22.0	N	N	N
	8-9910 Rambler	10 1/8	3 1/2	110	109	Mon	D	1	N	Mec	17	37 1/4	38 7/8	17.7	WTR	Gem	20.4	22.0	N	N	N
	8-9920 Rambler	10 1/8	3 1/2	110	109	Mon	D	1	N	Mec	17	37 1/4	38 7/8	17.7	WTR	Gem	20.4	22.0	N	N	N
	8-9960 Rambler	10 1/8	3 1/2	110	109	Mon	D	1	N	Mec	17	37 1/4	38 7/8	17.7	WTR	Gem	20.4	22.0	N	N	N
	8-MC1 Chrysler	10 1/8	3 1/2	110	109	Mon	D	1	N	Mec	17	37 1/4	38 7/8	17.7	WTR	Gem	20.4	22.0	N	N	N
	8-MC2 Chrysler	10 1/8	3 1/2	110	109	Mon	D	1	N	Mec	17	37 1/4	38 7/8	17.7	WTR	Gem	20.4	22.0	N	N	N
	8-MC3 Chrysler	10 1/8	3 1/2	110	109	Mon	D	1	N	Mec	17	37 1/4	38 7/8	17.7	WTR	Gem	20.4	22.0	N	N	N
	8-MC3-E Chrysler	10 1/8	3 1/2	110	109	Mon	D	1	N	Mec	17	37 1/4	38 7/8	17.7	WTR	Gem	20.4	22.0	N	N	N
	8-MC1 De Soto	10 1/8	3 1/2	110	109	Mon	D	1	N	Mec	17	37 1/4	38 7/8	17.7	WTR	Gem	20.4	22.0	N	N	N
	8-MC1 Dodge	10 1/8	3 1/2	110	109	Mon	D	1	N	Mec	17	37 1/4	38 7/8	17.7	WTR	Gem	20.4	22.0	N	N	N
CHRYSLER CORP.	8-MD1 Imperial	10 1/8	3 1/2	110	109	Mon	D	1	N	Mec	17	37 1/4	38 7/8	17.7	WTR	Gem	20.4	22.0	N	N	N
	8-MD2 Plymouth	10 1/8	3 1/2	110	109	Mon	D	1	N	Mec	17	37 1/4	38 7/8	17.7	WTR	Gem	20.4	22.0	N	N	N
	8-MP1 Plymouth	10 1/8	3 1/2	110	109	Mon	D	1	N	Mec	17	37 1/4	38 7/8	17.7	WTR	Gem	20.4	22.0	N	N	N
	8-MP2-L Plymouth	10 1/8	3 1/2	110	109	Mon	D	1	N	Mec	17	37 1/4	38 7/8	17.7	WTR	Gem	20.4	22.0	N	N	N
	8-MP2-L-M Plymouth	10 1/8	3 1/2	110	109	Mon	D	1	N	Mec	17	37 1/4	38 7/8	17.7	WTR	Gem	20.4	22.0	N	N	N
	8-MP2-L-M Plymouth	10 1/8	3 1/2	110	109	Mon	D	1	N	Mec	17	37 1/4	38 7/8	17.7	WTR	Gem	20.4	22.0	N	N	N
	8-MP2-L-M Plymouth	10 1/8	3 1/2	110	109	Mon	D	1	N	Mec	17	37 1/4	38 7/8	17.7	WTR	Gem	20.4	22.0	N	N	N
	8-MP2-L-M Plymouth	10 1/8	3 1/2	110	109	Mon	D	1	N	Mec	17	37 1/4	38 7/8	17.7	WTR	Gem	20.4	22.0	N	N	N
FORD MOTOR CO.	8-B Ranger	10 1/8	3 1/2	110	109	Mon	D	1	N	Mec	17	37 1/4	38 7/8	17.7	WTR	Gem	20.4	22.0	N	N	N
	8-B Ranger	10 1/8	3 1/2	110	109	Mon	D	1	N	Mec	17	37 1/4	38 7/8	17.7	WTR	Gem	20.4	22.0	N	N	N
	8-B Ranger	10 1/8	3 1/2	110	109	Mon	D	1	N	Mec	17	37 1/4	38 7/8	17.7	WTR	Gem	20.4	22.0	N	N	N
	8-B Ranger	10 1/8	3 1/2	110	109	Mon	D	1	N	Mec	17	37 1/4	38 7/8	17.7	WTR	Gem	20.4	22.0	N	N	N
	8-B Ranger	10 1/8	3 1/2	110	109	Mon	D	1	N	Mec	17	37 1/4	38 7/8	17.7	WTR	Gem	20.4	22.0	N	N	N
	8-B Ranger	10 1/8	3 1/2	110	109	Mon	D	1	N	Mec	17	37 1/4	38 7/8	17.7	WTR	Gem	20.4	22.0	N	N	N
	8-B Ranger	10 1/8	3 1/2	110	109	Mon	D	1	N	Mec	17	37 1/4	38 7/8	17.7	WTR	Gem	20.4	22.0	N	N	N
	8-B Ranger	10 1/8	3 1/2	110	109	Mon	D	1	N	Mec	17	37 1/4	38 7/8	17.7	WTR	Gem	20.4	22.0	N	N	N
	8-B Ranger	10 1/8	3 1/2	110	109	Mon	D	1	N	Mec	17	37 1/4	38 7/8	17.7	WTR	Gem	20.4	22.0	N	N	N
	8-B Ranger	10 1/8	3 1/2	110	109	Mon	D	1	N	Mec	17	37 1/4	38 7/8	17.7	WTR	Gem	20.4	22.0	N	N	N
8-B Ranger	10 1/8	3 1/2	110	109	Mon	D	1	N	Mec	17	37 1/4	38 7/8	17.7	WTR	Gem	20.4	22.0	N	N	N	

ALIGNMENT

ABBREVIATIONS

— Left side only; right side, $\frac{1}{2}$ N to $\frac{1}{4}$ P.
— El Dorado models, 10%
A-B—Ball joint.
B-C—Ball and cone.
C—Cone and roller.
CS—Coil spring.
D—Direct acting.
F-L—Four link.
Bu—Bushings.
CCS—Chrome carbon steel.
Co—Coal.
CR—Cure and roller.
CS—Coil spring.
Del—Delco.
FMG—Ford, Monroe or Gabriel.
Gab—Gabriel material washer.
GM—General or Monroe.
HAS—High alloy steel.
HO—Hotchkiss.
IK—Integral with kingpin.
L—Left side.
Le—Leaf.
LS—Parallel, longitudinal leaf with two parallel struts.
M—Monroe.
N—Negative.
No—Needle bearings.
P—Positive.
PC—Pivoted control arm.
PL—Parallel, longitudinal leaf.
RE—Reverse Elliot.
SE—Semi-elliptical.
S—Spherical joints.
St—Steel.
TB—Trailing arms and coil springs.
TA—Traction bearing.
TC—Torque tube drive with coil springs.
Th—Threaded.
TR—Tapered roller.
Va—Various.

IMPORTED PASSENGER CARS... 1959

MAKE AND MODEL	ENGINE										CHASSIS										Front Suspension Type	Rear Suspension Type	Service Brakes	Cooling System Capacity (Qt.)	Fuel Tank Capacity (Gal.)	
	Location in Chassis	Number of Cylinders Bore and Stroke (In.)	Max. Brake Horsepower at Specified R.P.M.	B.M.E.P. at Max. Horsepower (Lb./Sq. In.)	Piston Displacement (Cu. In.)	Compression Ratio (To - 1)	Cylinder Arrangement	Valve Location	Cams/Shaft Drive	Wheelbase (In.)	TREAD (In.)		OVERALL DIMENSIONS (In.)			Tires (In.)	Carburetors—No. Used and Type	Cooling Medium	Shifting Method	No. of Forward Gears						Final Drive Type
											Front	Rear	Length Including Bumper Guards	Width	Height—Road to Roof, No Load											
GREAT BRITAIN																										
A.C.	Acce	Fr	6-2.59x3.90	90-4500	132	121.4	8.00 IL	IH	Ch	78.0	50.0	50.0	104.0	59.0	48.0	5.50/16	3-Ho	W	HS	4 Hy	LS	LS	H	11	15.7	
	Acce	Fr	6-2.59x3.78	120-6000	133	119.0	8.50 IL	IH	Ch	78.0	50.0	50.0	104.0	59.0	49.0	5.50/16	3-Do	W	HS	4 Hy	LS	LS	H	11	15.7	
	Acce	Fr	6-2.59x3.90	90-4500	132	121.4	8.00 IL	IH	Ch	78.0	50.0	50.0	104.0	61.0	52.0	5.50/16	3-Ho	W	HS	4 Hy	LS	LS	H	11	15.7	
	Acce	Fr	6-2.60x3.78	105-5000	137	121.5	8.50 IL	IH	Ch	78.0	50.0	50.0	104.0	61.0	52.0	5.50/16	3-Ho	W	HS	4 Hy	LS	LS	H	11	15.7	
	Acce	Fr	6-2.59x3.78	120-6000	133	119.0	8.50 IL	IH	Ch	78.0	50.0	50.0	104.0	61.0	52.0	5.50/16	3-Do	W	HS	4 Hy	LS	LS	H	11	15.7	
Alvis	TD-21	Fr	6-3.31x3.54	104-4000	100	182.6	8.00 IL	IH	Ch	111.5	54.6	54.1	188.5	66.0	60.0	6.00/15	2-SS	W	HS	4 SH	CS	LS	H	12	17.2	
Armstrong-Siddeley	Sapphire 348	Fr	6-3.54x3.54	125-4700	100	208.6	7.00 IL	IH	Ch	133.0	56.8	57.5	212.0	72.0	66.0	7.00/16	1-SD	W	HA	4 Hy	CS	CS	H	14	16.8	
	Star Sapphire	Fr	6-3.82x3.54	165-4250	125	243.5	7.50 IL	IH	Ch	114.0	57.8	57.5	194.0	74.0	62.0	6.70/16	2-SD	W	Au	3 Hy	CS	CS	HV	13	16.0	
Aston Martin	DB Mk III	Fr	6-3.07x3.27	202-5500	130	178.3	8.20 IL	TO	Ch	99.0	54.0	54.0	171.3	65.0	54.3	6.00/16	2-SS	W	HS	4 Hk	CS	CS	H	14 1/2	16.8	
	DB4	Fr	6-3.62x3.62	240-5500	154	223.8	8.20 IL	TO	Ch	96.0	54.0	53.5	176.4	66.0	51.5	6.00/16	2-SS	W	HS	4 Hk	CS	CS	H	14	22.9	
Austin	A35	Fr	4-2.48x3.00	34-4750	98	57.8	8.30 IL	IH	Ch	79.5	45.3	44.8	136.6	55.1	59.1	5.20/13	1-SD	W	HS	4 Hy	CS	LT	HM	8	8.9	
	A40	Fr	4-2.48x3.00	34-4750	98	57.8	8.30 IL	IH	Ch	83.5	47.0	47.0	144.3	59.4	62.8	5.20/13	1-SD	W	HS	4 Hy	CS	LS	H	8	7.3	
	A55	Fr	4-2.88x3.50	51-4250	96	90.9	8.30 IL	IH	Ch	99.3	48.5	49.0	166.9	61.5	60.3	5.90/13	1-SD	W	HS	4 Hy	CS	LS	H	7 1/2	10.6	
	A85	Fr	6-3.13x3.80	92-4500	100	161.0	8.25 IL	IH	Ch	105.8	56.5	51.3	189.8	64.0	62.0	6.40/15	1-SD	W	HA	4 Hy	CS	LS	H	15	19.3	
	A105	Fr	6-3.13x3.80	102-4600	92	161.0	8.25 IL	IH	Ch	105.8	56.5	51.3	189.8	64.0	62.0	6.40/15	2-SS	W	HA	4 Hy	CS	LS	H	15	19.3	
Austin-Healey	Sprite	Fr	4-2.48x3.00	43-5200	113	57.8	8.30 IL	IH	Ch	80.0	45.8	44.8	132.6	53.0	49.8	5.20/13	2-SD	W	HS	4 Hk	CS	LS	H	7	7.2	
	100-6	Fr	6-3.13x3.13	117-5000	115	181.1	8.70 IL	IH	Ch	91.7	48.8	50.0	157.5	60.0	49.0	5.90/15	2-SD	W	HS	4 Hk	CS	LS	H	10	15.0	
Bentley	Continental	Fr	6-3.75x3.50	.....	298.0	8.00 IL	IS	G	123.0	58.0	60.0	210.5	72.0	62.0	7.00/15	2-SS	W	Au	4 Hk	CS	LS	HM	16	21.6	
	S	Fr	6-3.75x3.50	.....	298.0	8.00 IL	IS	G	123.0	58.0	60.0	212.0	74.5	64.3	8.20/15	2-SS	W	Au	4 Hk	CS	LS	HM	16 1/2	21.6	
	S	Fr	6-3.75x3.50	.....	298.0	8.00 IL	IS	G	127.0	58.0	60.0	215.8	74.5	64.3	8.20/15	2-SS	W	Au	4 Hk	CS	LS	HM	16 1/2	21.6	
Berkeley	Twosome	Fr	3-2.28x2.42	30-5500	72	30.0	7.50 IL	N	N	70.0	42.5	42.0	123.0	50.0	46.0	5.20/12	3-SS	A	HS	4 Ch	CS	CS	H	N	6.8	
	Foursome	Fr	3-2.28x2.44	30-5500	72	30.0	7.50 IL	N	N	76.0	46.3	46.0	131.0	54.0	46.0	5.20/12	3-SS	A	HS	4 Ch	CS	CS	H	N	6.8	
Citroen	2CV	Fr	2-2.58x2.42	14-3500	82	25.9	7.00 Op	IH	G	81.5	49.6	49.6	148.5	58.3	63.0	5.25/15	1-SD	A	HS	4 SB	CS	CS	H	N	4.3	
	ID19	Fr	4-3.04x3.90	66-4500	100	116.5	7.50 IL	IH	Ch	123.0	59.0	51.3	189.0	70.5	59.9	6.40/15	1-SD	W	HS	4 SB	HP	HP	H	9 1/2	14.0	
	DS19	Fr	4-3.04x3.90	75-4500	113	116.5	7.50 IL	IH	Ch	123.0	59.0	51.0	189.0	70.5	59.9	6.40/15	1-SD	W	Pr	4 SB	HP	HP	H	9 1/2	14.0	
Daimler	Majestic	Fr	6-3.40x4.25	147-4400	114	231.0	7.50 IL	IH	Ch	114.0	56.0	57.0	196.0	73.3	62.3	6.50/16	2-SS	W	Au	3 Hk	CS	LS	HV	11 1/2	18.0	
	DK400	Fr	6-3.75x4.25	167-3800	124	261.0	7.00 IL	IH	Ch	130.0	60.0	63.0	217.0	77.0	70.7	7.50/16	2-SS	W	Pr	4 Hk	CS	LS	HV	18	28.0	
Fairthorpe	Atomola	Fr	2-2.77x3.60	34-5750	140	40.0	6.50 IL	IH	G	81.0	49.0	48.5	129.0	60.0	48.0	5.20/13	1-SS	A	HS	4 TT	CS	CS	H	N	8.5	
	Electron Minor	Fr	4-2.48x2.99	38-5000	133	57.8	8.00 IL	IH	Ch	81.0	49.0	48.5	132.0	58.0	46.0	5.60/13	1-SD	W	HS	4 TT	CS	CS	H	8	10.0	
	Electron	Fr	4-2.95x2.63	89-6800	325	67.0	10.50 IL	OC	Ch	82.0	49.0	45.5	138.0	58.0	46.0	5.20/15	2-SS	W	HS	4 TT	CS	CS	H	8	10.0	
Ford	Popular	Fr	4-2.50x3.64	30-4000	94	71.6	6.16 IL	L	Ch	80.0	45.0	45.0	152.3	55.5	63.8	4.50/17	1-SD	W	HS	3 TT	LS	LS	M	6	7.0	
	Escort	Fr	4-2.50x3.64	38-4500	89	71.6	7.00 IL	L	Ch	87.0	48.0	47.5	140.4	60.8	62.8	5.60/13	1-SD	W	HS	3 Hk	CS	LS	H	6	7.0	
	Squire	Fr	4-2.50x3.64	38-4500	89	71.6	7.00 IL	L	Ch	87.0	48.0	47.5	141.8	60.8	62.8	5.60/13	1-SD	W	HS	3 Hk	CS	LS	H	6	7.0	
	Anglia, Perfect	Fr	4-2.50x3.64	38-4500	89	71.6	7.00 IL	L	Ch	87.0	48.0	47.5	149.8	60.8	68.8	5.20/13	1-SD	W	HS	3 Hk	CS	LS	H	6	7.0	
	Consul Mk II	Fr	4-3.25x3.13	61-4400	102	103.9	7.80 IL	L	Ch	104.5	53.0	52.0	172.0	68.6	61.5	5.90/13	1-SD	W	HS	3 Hk	CS	LS	H	9	10.5	
	Zephyr	Fr	6-3.25x3.13	90-4400	100	155.8	7.80 IL	IH	Ch	107.0	53.0	52.0	178.5	68.9	62.0	6.40/13	1-SD	W	HA	3 Hk	CS	LS	H	11	10.5	
	Zodiac	Fr	6-3.25x3.13	90-4400	100	155.8	7.80 IL	IH	Ch	107.0	53.0	52.0	160.5	68.9	62.0	6.40/13	1-SD	W	HA	3 Hk	CS	LS	H	11	10.5	
Frisky	Convertible & Coupe	R	2-2.22x2.48	15-5500	58	19.8	7.25 IL	N	N	60.0	48.3	32.0	110.0	55.5	48.0	4.40/10	1-SS	A	HS	4 Ch	CS	CS	H	N	4.0	
	Sprint	R	3-2.28x2.44	34-5700	89	29.0	8.25 IL	N	N	68.0	49.0	47.0	122.5	56.0	37.5	5.20/10	3-SS	A	HS	4 Ch	CS	CS	H	N	9.7	
Hillman	Husky Series I	Fr	4-3.00x3.00	43-4000	100	85.0	7.00 IL	IH	Ch	86.0	49.0	48.5	149.5	62.0	62.0	5.00/15	1-SD	W	HS	4 TT	CS	CS	H	6 1/2	8.3	
	Minx Series III	Fr	4-3.11x3.00	53-4400	129	91.2	8.50 IL	IH	Ch	96.0	49.0	48.5	162.7	60.8	59.5	5.60/15	1-SD	W	HS	4 TT	CS	CS	H	6 1/2	7.3	
Humber	Hawk	Fr	4-3.19x4.33	78-4400	131	138.2	7.50 IL	IH	Ch	110.0	56.0	55.5	184.5	69.5	61.0	6.00/15	1-SD	W	HA	4 TT	CS	LS	H	10	11.5	
	Super Snipe Series I	Fr	6-3.25x3.25	112-5000	129	161.5	7.50 IL	IH	Ch	110.0	56.5	55.5	184.8	69.5	61.0	6.70/15	1-SD	W	HA	4 TT	CS	LS	H	13	12.5	
Jaguar	2.4 Litre	Fr	6-3.27x3.01	112-5750	140	151.5	8.00 IL	OC	Ch	107.2	54.6	50.1	180.8	66.8	65.7	5.60/15	2-Do	W	HA	4 Hk	CS	LS	H	12	14.5	
	XK 150 DHC & FHC	Fr	6-3.27x4.17	210-5500	155	210.0	8.00 IL	OC	Ch	102.0	51.6	51.6	177.0	64.5	55.0	6.00/16	2-SD	W	HA	4 Hk	CS	LS	H	14	16.8	
	3.4 Litre	Fr	6-3.27x4.17	210-5500	155	210.0	8.00 IL	OC	Ch	107.2	54.6	50.1	180.8	66.8	65.7	5.60/15	2-SD	W	HA	4 Hk	CS	LS	H	13 1/2	14.5	
	Mark VIII	Fr	6-3.27x4.17	210-5500	155	210.0	8.00 IL	OC	Ch	120.0	56.5	56.0	196.5	73.0	63.0	6.70/16	2-SD	W	HA	4 Hk	CS	LS	H	13 1/2	20.5	
	Mark IX	Fr	6-3.43x4.17	220-5500	167	230.6	8.00 IL	OC	Ch	120.0	56.5	56.0	196.5	73.0	63.0	6.70/16	2-SD	W	HA	4 Hk	CS	LS	H	13 1/2	20.5	
	XK 160 Type S	Fr	6-3.27x4.17	220-5500	172	210.0	9.00 IL	OC	Ch	102.0	51.6	51.6	178.0	64.5	52.5	6.00/16	3-SD	W	HS	4 Hk	CS	LS	H	14	16.8	
Jensen	541R & Deluxe	Fr	6-3.40x4.37	150-3750	131	243.0																				

1959 ... IMPORTED PASSENGER CARS

MAKE AND MODEL		Location in Chassis	ENGINE								CHASSIS																	
			Number of Cylinders Bore and Stroke (in.)	Max. Brake Horsepower at Specified R.P.M.	B.M.E.P. at Max. Horsepower (Lb./Sq. In.)	Piston Displacement (Cu. In.)	Compression Ratio (To - 1)	Cylinder Arrangement	Valve Location	Camber Drive	Wheelbase (in.)	TREAD (in.)		OVERALL DIMENSIONS (in.)			Tires (in.)	Carburetors—No. Used and Type	Cooling Medium	Shifting Method	No. of Forward Speeds	Final Drive Type	Front Suspension Type	Rear Suspension Type	Service Brakes	Cooling System Capacity (Qt.)	Fuel Tank Capacity (Gal.)	
												Front	Rear	Length including Bumpers and Guard Rails	Width	Height—Road to Roof, No Load												
GREAT BRITAIN—continued																												
Morris Minor 1000	Fr	4-2.48x3.00	37-4800	130	57.8	8.30	IL	IH	Ch	88.0	51.0	50.0	146.0	61.0	60.0	5.00/14	1-SSh	W	HS	4 Hk	TB	LS	H	8	7.8			
Oxford & Cowley	Fr	4-2.88x3.50	55-4400	130	90.9	8.30	IL	IH	Ch	97.0	54.0	53.0	171.0	65.0	63.0	5.60/15	1-SSh	W	HS	4 Hk	TB	LS	H	7	14.6			
Peerless GT2	Fr	4-3.27x3.62	100-5000	145	121.5	8.50	IL	IH	Ch	94.5	51.0	51.0	162.0	63.0	60.0	5.50/15	2-SS	W	HS	4 De	CS	LS	H	8	16.9			
Riley 1.5	Fr	4-2.88x3.50	55-4400	138	90.9	8.30	IL	IH	Ch	88.0	51.0	50.0	153.0	61.0	60.0	5.00/14	1-SSh	W	HS	4 Hk	TB	LS	H	8	8.4			
2.6	Fr	6-3.13x3.50	101-4500	132	161.1	8.30	IL	IH	Ch	114.0	54.0	54.0	185.0	67.0	61.0	6.70/15	2-SS	W	HA	4 Hk	TB	LS	H	10	15.7			
Rolls Royce Silver Cloud	Fr	6-3.75x4.50			296.0	8.00	IL	IS	G	123.0	56.0	60.0	212.0	74.5	64.3	8.20/15	2-SS	W	Au	4 Hk	CS	LS	H	16	21.8			
Silver Cloud	Fr	6-3.75x4.50			296.0	8.00	IL	IS	G	127.0	56.0	60.0	215.8	74.5	64.3	8.20/15	2-SS	W	Au	4 Hk	CS	LS	H	16	21.8			
Silver Wraith	Fr	6-3.75x4.50			296.0	8.00	IL	IS	G	133.0	57.9	64.0	(2)	(2)	(2)	7.50/16	2-SS	W	Au	4 Hk	CS	LS	H	18	21.8			
Rover 60	Fr	4-3.06x4.13	60-4000	125	122.0	8.90	IL	IS	Ch	111.0	52.0	51.5	179.3	65.6	63.8	6.00/15	1-SD	W	HS	4 Hk	CS	LS	H	8	11.5			
75	Fr	6-2.88x3.50	60-4500	125	136.0	7.20	IL	IS	Ch	111.0	52.0	51.5	179.3	65.6	63.8	6.00/15	1-SD	W	HS	4 Hk	CS	LS	H	10	11.5			
90	Fr	6-2.88x4.13	93-4500	129	161.0	7.50	IL	IS	Ch	111.0	52.0	51.5	179.3	65.6	63.8	6.00/15	1-SD	W	HS	4 Hk	CS	LS	H	10	11.5			
105	Fr	6-2.88x4.13	108-4250	142	161.0	8.50	IL	IS	Ch	111.0	52.0	51.5	179.3	65.6	63.8	6.00/15	2-SD	W	HS	5 Hk	CS	LS	HV	10	11.5			
3 Litre	Fr	6-3.06x4.13	115-4500	136	162.7	8.75	IL	IS	Ch	110.5	55.0	56.0	186.5	70.0	60.3	6.70/15	1-SD	W	HA	4 Hk	TB	LS	HV	11	14.0			
Singer Gazelle Series III	Fr	4-3.11x3.00	60-4500	137	91.2	8.50	IL	IH	Ch	96.0	49.0	48.5	163.5	60.8	59.5	5.00/15	1-SD	W	HS	4 TT	CS	LS	H	8	10.0			
Standard 8	Fr	4-2.28x2.99	33-5000	100	49.0	8.25	IL	IH	Ch	84.0	48.5	48.5	142.0	58.0	59.0	5.20/13	1-SD	W	HS	4 Hk	CS	LS	H	4	8.4			
10	Fr	4-2.48x2.99	37-5000	100	57.8	8.00	IL	IH	Ch	84.0	48.5	48.5	142.0	58.0	59.0	5.20/13	1-SD	W	HS	4 Hk	CS	LS	H	4	8.4			
Pennant	Fr	4-2.48x2.99	37-5000	100	57.8	8.00	IL	IH	Ch	84.0	48.5	48.5	147.0	58.0	59.0	5.80/13	1-SD	W	HS	4 Hk	CS	LS	H	4	8.4			
Ensign	Fr	4-2.99x3.62	60-4000	115	102.0	8.00	IL	IH	Ch	102.0	51.0	51.5	171.5	67.5	60.0	5.90/15	1-SD	W	HS	4 Hk	CS	LS	H	8	14.4			
Vanguard III Estate Car	Fr	4-3.35x3.62	68-4000	106	127.6	7.50	IL	IH	Ch	102.0	51.0	51.0	179.5	67.5	60.0	5.50/15	1-SD	W	HA	3 Hk	CS	LS	H	8	14.4			
Vanguard III	Fr	4-3.35x3.62	68-4000	106	127.6	7.50	IL	IH	Ch	102.0	51.0	51.5	172.0	67.5	60.0	5.90/15	1-SD	W	HA	3 Hk	CS	LS	H	8	14.4			
Sunbeam Rapier Series II	Fr	4-3.11x3.00	73-5200	134	91.1	8.50	IL	IH	Ch	96.0	49.0	48.5	162.5	61.0	58.5	5.60/15	2-SD	W	HS	4 TT	CS	LS	H	8	10.0			
Triumph Sedan	Fr	4-2.48x2.99	37-5000	100	57.8	8.00	IL	IH	Ch	84.0	48.5	48.5	142.0	58.0	59.0	5.20/13	1-SD	W	HS	4 Hk	CS	LS	H	4	8.4			
Estate Wagon	Fr	4-2.48x2.99	37-5000	100	57.8	8.00	IL	IH	Ch	84.0	48.5	48.5	144.0	58.0	59.0	5.60/13	1-SD	W	HS	4 Hk	CS	LS	H	4	8.4			
Sports TR3	Fr	4-3.27x3.62	100-5000	130	121.5	8.50	IL	IH	Ch	88.0	45.0	45.0	181.0	55.5	46.0	5.50/15	2-SD	W	HS	4 Hk	CS	LS	H	8	14.4			
Unicar T	R	2-2.26x2.42	18-5000	74	19.4	7.50	IL	N	N	72.0	48.0	36.0	116.0	38.0	32.0	4.40/12	1-SD	A	HS	3 Ch	CS	MS	N	4	2.2			
Vauxhall Victor FD	Fr	4-3.13x3.00	55-4200	113	92.0	7.80	IL	IH	Ch	98.0	50.0	50.0	167.9	62.5	57.6	5.60/13	1-SD	W	HS	3 Hk	CS	LS	H	7	9.6			
Victor FW	Fr	4-3.13x3.00	55-4200	113	92.0	7.80	IL	IH	Ch	98.0	50.0	50.0	167.9	62.5	58.0	5.90/13	1-SD	W	HS	3 Hk	CS	LS	H	7	9.6			
Wolseley 1500	Fr	4-2.88x3.50	50-4200	123	90.9	8.30	IL	IH	Ch	86.0	51.0	50.0	152.0	61.0	59.9	5.00/14	1-SSh	W	HS	4 Hk	TB	LS	H	8	8.4			
15 50	Fr	4-2.88x3.50	55-4400	130	90.9	8.30	IL	IH	Ch	102.0	51.0	51.0	173.0	61.0	60.0	5.60/15	1-SSh	W	HS	4 Hk	CS	LS	H	9	11.1			
6 90	Fr	6-3.13x3.50	101-4500	126	161.1	8.30	IL	IH	Ch	114.0	54.0	55.0	188.0	67.0	62.0	6.70/15	2-SS	W	HA	4 Hk	TB	LS	H	10	15.7			
AUSTRALIA																												
Holden FC	Fr	6-3.00x3.13	72-4400	98	132.5	7.00	IL	IH	G	105.0	54.5	54.5	176.0	66.9	62.9	6.40/13	1-SD	W	HS	3 Hk	CS	LS	H	9	11.4			
AUSTRIA																												
Steyr 2000	Fr	4-3.35x3.47	86-4600	120	121.7	7.50	IL	IH	Ch	104.3	52.2	52.1	170.3	65.2	62.6	6.40/14	1-DD	W	HS	5 TT	CS	CS	H	10	14.5			
2300 Sport	Fr	4-3.55x3.47	95-4300	121	136.8	8.00	IL	IH	Ch	104.3	52.4	52.1	170.3	65.2	62.6	6.40/14	1-DD	W	HS	4 TT	CS	CS	H	10	14.5			
CZECHOSLOVAKIA																												
Skoda Octavia	Fr	4-2.68x2.95	40-4200	112	66.6	7.00	IL	IH	Ch	94.5	47.6	49.0	159.0	63.0	58.0	5.00/15	1-SD	W	HS	4 Hk	CS	LS	H	8	8.0			
Octavia Super	Fr	4-2.83x2.95	45-4200	112	73.3	7.00	IL	IH	Ch	94.5	47.6	49.0	159.0	63.0	58.0	5.00/15	1-SD	W	HS	4 Hk	CS	LS	H	8	8.0			
Felicia	Fr	4-2.68x2.95	50-5500	107	66.6	8.20	IL	IH	Ch	94.5	47.6	49.0	159.0	63.0	58.0	5.00/15	2-SD	W	HS	4 Hk	CS	LS	H	8	8.0			
Tatra 603	R	8-2.93x2.88	95-5000	112	155.2	6.20	V	OC	Ch	106.3	55.1	55.1	199.4	75.2	61.9	6.70/15	1-De	A	HS	4	CS	CS	H	N	12.0			
FRANCE																												
Bugatti 101		8-2.82x3.94	200-5000	145	199.0	6.50	IL	IH	G	130.0	53.2	53.2	212.4	65.0	65.0	6.00/17	1-DD	W	HS	4 SB								
Citroen 2CV	Fr	2-2.34x2.42	13-4200	95	25.8	7.00	Op	OC	G	94.5	49.6	49.6	149.0	58.3	63.0	8.75/15	1-De	A	Au	4	CS	CS	H		4.4			
1D19P	Fr	6-3.10x3.90	86-4500	97	119.5	7.50	IL	OC	Ch	123.0	59.1	51.2	189.5	70.5	58.0	6.40/15	1-De	W	HS	4	TB	TB	H	7	16.2			
DS19	Fr	6-3.10x3.90	75-4500	111	119.5	7.50	IL	OC	Ch	123.0	59.1	51.2	189.5	70.5	58.0	6.40/15	1-De	W	HS	4	TB	TB	H	7	16.2			
Facel-Vega HK500			380			10.00	V	IH		104.7	55.9	57.0	181.1	70.8	62.0	6.70/15	2-Fb		HS	4 Hy								
Excellence			380			10.00	V	IH		124.8	55.9	57.0	206.7	72.0	64.0	7.10/15	2-Fb		HS	4 Hy								
Panhard Dyna	Fr	2-3.32x2.92	42		51.9		Op	IH	G									A	HS	4		LS						
Peugeot 403	Fr	4-3.13x2.88	65-4750	110	89.8	7.50	IL	IH	Ch	105.0	52.8	52.0	176.0	66.0	59.3	6.50/15	1-De	W	HS	4 TT	LS	CS	H	9	13.3			
Renault R-1062	R	4-2.15x3.15	26-4300	114	45.3	7.75	IL	IH	G	82.7	47.9	48.0	143.2	56.3	57.9	5.00/15	1-De	W	HS	3 SA	CT	CS	H	4	7.3			
R-1090 Dauphine	R	4-2.28x3.15	31-4250	122	51.6	8.00	IL	IH	G	89.5	49.3	48.0	157.5	60.0	56.8	5.00/15	1-De	W	HS	3 SA	CT	CS	H	4	8.5			
R-1091 Dauphine Gordini	R	4-2.28x3.15	38-5000	135	51.6	7.80	IL	IH	G	89.5	49.3	48.0	157.5	60.0	56.8	5.50/15	1-De	W	HS	4 SA	CT	CS	H	4	8.5			

• IMPORTED CARS •

IMPORTED PASSENGER CARS—continued

MAKE AND MODEL	Location in Chassis	ENGINE										CHASSIS																	
		Number of Cylinders Bore and Stroke (in.)	Max. Brake Horsepower at Specified R.P.M.	B.M.E.P. at Max. Horsepower (Lb./Sq. In.)	Piston Displacement (Cu. In.)	Compression Ratio (To — 1)	Cylinder Arrangement	Valve Location	Camshaft Drive	Wheelbase (in.)	TREAD (in.)		OVERALL DIMENSIONS (in.)				Tires (in.)	Carburizers—No. Used and Type	Cooling Medium	Shifting Method	No. of Forward Speeds	Final Drive Type	Front Suspension Type	Rear Suspension Type	Service Brakes	Cooling System Capacity (Qt.)	Fuel Tank Capacity (Gal.)		
											Front	Rear	Length Including Bumpers and Bumper Guards	Width	Height—Road to Roof, No Load														
FRANCE—continued																													
Renault (Cont'd.)																													
R-1103 Fregate	Fr	4-3.46x3.46	77-4000	122	130.7	7.00	IL	IH	G	110.2	55.1	55.1	185.0	67.7	63.0	6.40/15	1-Do	W	HS	3	Do	CT	CT	H	9 1/2	15.3			
R-1104 Transfluide	Fr	4-3.46x3.46	80-4000	128	130.7	7.50	IL	IH	G	110.2	55.1	55.1	185.0	67.7	63.0	6.40/15	1-Do	W	HS	3	Do	CT	CT	H	9 1/2	15.3			
Revin	Fr	2-2.73x2.34	13-3200	116	27.7		Op			71.0	38.6	38.6	124.0	45.3	48.3	3.50/10	1-	W											
Simca	Fr	4-2.91x2.95	48-4800	99	78.7	6.70	IL	IH	Ch	95.9	49.4	49.2	164.9	61.6	56.1	5.60/14	1-SD	W	HS	4	Hk	CT	LS	H	8 1/4	11.4			
Ariane	Fr	4-2.91x2.95	48-4800	99	78.7	6.70	IL	IH	Ch	106.0	54.0	53.0	177.9	69.1	56.2	6.50/15	1-SD	W	HS	4	Hk	CT	LS	H	8 1/4	15.9			
Vedette	Fr	8-2.60x3.38	84-4800	97	143.4	7.50	V	L	G	105.9	53.9	52.8	187.0	69.6	52.7	6.50/15	1-DD	W	HS	3	Hk	CT	LS	H	18	15.9			
Talbot	Fr	8-2.57x3.34	95-5000	109	138.5	8.00	V	L	G	98.5	51.3	51.3	165.5	64.6	52.0	6.00/16	2-Do	W	HS	4		LS	LS	H	9 1/4	17.6			
GERMANY																													
BMW	R	2-2.91x2.67	23-4000	129	35.7	6.80	Op	IH	G	86.9	47.5	46.2	114.0	55.2	54.0	5.20/10	1-DD	A	HS	4	BG	CS	CS	H	N	6.0			
2, 6	Fr	6-2.91x2.95	110-4800	115	157.0	7.00	V	IH	Ch	111.6	62.3	55.7	186.0	70.0	60.0	6.40/15	1-DD	W	HS	4	TT	TB	TB	H	9 1/2	16.0			
2, 6 Luxe	Fr	6-2.91x2.95	115-4800	121	157.0	7.00	V	IH	Ch	111.6	62.3	55.7	186.0	70.0	60.0	6.40/15	1-DD	W	HS	4	TT	TB	TB	H	9 1/2	16.0			
3, 2	Fr	6-3.22x2.95	140-4800	120	183.0	7.20	V	IH	Ch	111.6	62.3	55.7	186.0	70.0	60.0	6.40/15	1-DD	W	HS	4	TT	TB	TB	H	9 1/2	16.0			
3, 2 Super	Fr	6-3.22x2.95	162-4800	139	183.0	7.30	V	IH	Ch	111.6	62.3	55.7	186.0	70.0	60.0	6.50/15	2-DD	W	HS	4	TT	TB	TB	H	10 1/2	16.0			
503	Fr	6-3.22x2.95	162-4800	139	183.0	7.30	V	IH	Ch	111.6	62.3	55.9	187.0	67.0	56.4	6.50/16	2-DD	W	HS	4	TT	TB	TB	H	10 1/2	20.0			
507	Fr	6-3.22x2.95	173-5000	142	183.0	7.80	V	IH	Ch	97.5	56.8	56.0	172.4	68.0	50.0	6.00/16	2-DD	W	HS	4	TT	TB	TB	H	10	16.0			
Borgward	Fr	4-2.92x3.30	60-4700	111	91.0	7.00	IL	IH	G	101.5	52.0	53.0	171.0	66.5	53.1	5.90/13	1-SD	W	HS	4	Ch	CS	CS	H	8	10.6			
Isabella	Fr	4-2.92x3.30	75-5200	125	91.0	8.20	IL	IH	G	101.5	52.0	53.0	171.0	66.5	53.1	5.90/13	1-DD	W	HS	4	Ch	CS	CS	H	8	10.6			
Ford	Fr	4-2.50x3.64	43-4250	107	71.5	6.80	IL	L	G	98.0	48.0	48.0	160.0	62.2	61.0	5.60/13	1-SD	W	HS	3	Hk	CT	LS	H	7 1/2	9.0			
Taurus 12M	Fr	4-3.31x3.02	67-4400	113	103.6	7.10	IL	IH	G	102.5	50.0	50.0	172.3	65.7	59.1	5.90/13	1-SD	W	HS	3	Hk	CT	LS	H	8 1/4	11.9			
Goggomobil	R	2-	15-5000	67	17.8		IL			70.8			114.2	50.4	51.5	4.40/10	1-	A		4		CS	CS	H	N				
Regent T400	R	2-2.64x2.21	20-5000	66	23.9	6.00	IL	N	N	70.8			114.2	50.4	51.5	4.40/10	1-SS	A		4		CS	CS	H	N				
Mayfair T5300	R	2-	15-5000	67	17.8		IL			70.8			119.5	53.9	48.6	4.80/10	1-	A	Pr	4		CS	CS	H	N				
Mayfair T5400	R	2-	20-5000	66	23.9	6.00	IL	N	N	70.8	42.0	42.0	119.5	53.9	48.6	4.80/10	1-SS	A		4		CS	CS	H	N	6.6			
Royal T700	Fr	2-	30-4900	113	41.6		Op	IH		78.7			134.8	57.9	54.3	4.80/12	1-	A	HS	4		CS	LS	H	N				
Goliath																													
1100 & 1100B Sedan	Fr	4-2.91x2.52	46-4250	110	66.7	7.25	Op	IH	G	89.3	50.8	49.2	159.7	64.2	57.1	5.60/13	1-SD	W	HS	4	FW	LS	LS	H	8	10.0			
1100 & 1100B Empress	Fr	4-2.91x2.52	61-5000	123	66.7	7.90	Op	IH	G	89.3	50.8	49.2	159.7	64.2	57.1	5.60/13	1-SD	W	HS	4	FW	LS	LS	H	8	10.0			
1100 & 1100B Tiger	Fr	4-2.91x2.52	61-5000	123	66.7	7.90	Op	IH	G	89.3	50.8	49.2	161.4	64.2	53.5	5.60/13	1-SD	W	HS	4	FW	LS	LS	H	8	10.0			
Isotta	R	1-2.83x2.67	16-5200	133	18.0	7.00	S	IH	Ch	59.0	47.3	20.5	92.6	54.3	52.7	4.80/10	1-	A	HS	4	Ch	CS	LS	H	N	3.4			
Lloyd	Fr	2-3.03x2.52	24-4500	91	36.4	6.60	IL	OC	Ch	78.3	41.4	43.4	131.1	55.8	55.1	4.25/15	1-SD	A	HS	4	FW	LS	CS	H	N	6.8			
Alexander	Fr	2-3.03x2.52	29-5000	107	36.4	7.20	IL	OC	Ch	78.3	41.4	43.4	131.1	55.8	55.1	4.25/15	1-SD	A	HS	4	FW	LS	CS	H	N	6.8			
Alexander TS	Fr	2-3.03x2.52	29-5000	107	36.4	7.20	IL	OC	Ch	78.3	41.4	43.4	131.1	55.8	55.1	4.25/15	1-SD	A	HS	4	FW	LS	CS	H	N	6.8			
Maico	R	2-2.57x2.57	18-4000	84	27.6	7.20	IL	N	N	81.5	47.3	45.5	135.0	57.8	53.3	5.20/12	1-SU	W	HS	4		CS	CS	H	3	6.6			
Mercedes-Benz	Fr	4-3.32x3.26	74-4700	107	115.8	6.80	IL	OC	Ch	105.0	56.0	57.5	175.5	68.5	61.0	6.40/13	1-SD	W	HS	4	Hy	CS	CS	H	8	12.3			
180D	Fr	4-2.92x3.80	46-3500	97	107.8	19.00	IL	IH	G	105.0	56.0	57.5	175.5	68.5	61.0	6.40/13	1-SD	W	HS	4	Hy	CS	CS	H	7 1/2	12.3			
190	Fr	4-3.32x3.26	84-4800	120	115.8	7.50	IL	OC	Ch	104.5	56.0	58.0	176.5	68.5	61.0	6.40/13	1-DD	W	HS	4	Hy	CS	CS	H	8 1/4	12.3			
190D	Fr	4-3.32x3.26	84-4800	120	115.8	7.50	IL	OC	Ch	104.5	56.0	58.0	176.5	68.5	61.0	6.40/13	1-DD	W	HS	4	Hy	CS	CS	H	7 1/2	12.3			
190SL	Fr	4-3.32x3.26	120-5700	142	115.8	8.50	IL	OC	Ch	94.5	56.0	58.0	165.5	68.5	61.0	6.40/13	2-DS	W	HS	4	Hy	CS	CS	HV	8 1/4	14.3			
219	Fr	6-3.12x2.84	100-5000	120	134.0	8.70	IL	OC	Ch	106.0	56.0	58.0	183.0	68.5	61.0	6.40/13	1-DD	W	HS	4	Hy	CS	CS	H	10	12.3			
220S Saloon	Fr	6-3.12x2.84	120-5200	139	134.0	8.70	IL	OC	Ch	111.0	56.0	58.0	185.5	68.5	61.0	6.70/13	2-DD	W	HS	4	Hy	CS	CS	HV	10	14.0			
220S Coupe	Fr	6-3.12x2.84	120-5200	139	134.0	8.70	IL	OC	Ch	106.0	56.0	58.0	185.0	70.5	60.0	6.40/13	1-DD	W	HS	4	Hy	CS	CS	HV	10	14.0			
220SE	Fr	6-3.12x2.84	130-5000	154	134.0	8.70	IL	OC	Ch	111.0	56.0	58.0	187.0	68.5	61.0	6.70/13	1-DD	W	HS	4	Hy	CS	CS	HV	10	14.0			
300 Automatic	Fr	6-3.32x3.43	180-5500	143	182.8	8.50	IL	OC	Ch	124.0	58.0	60.0	204.0	73.0	64.0	7.60/15	1-SD	W	Au	4	Hy	CS	CT	HV	18 1/2	15.8			
300SL Roadster	Fr	6-3.32x3.43	240-6100	164	182.8	8.50	IL	OC	Ch	94.5	55.0	57.0	180.0	70.5	61.0	6.50/15	1-SD	W	HS	4	Hy	CS	CS	HV	17 1/2	22.0			
NSU	R	2-2.92x2.57	26-4800	82	34.5	6.80	IL	OC	CR	78.0	46.8	46.8	126.0	55.4	53.5		1-Do	A	HS	4	Hk	CS	CS	H	N	6.6			
Prinz II	R	2-2.92x2.57	42-6000	81	34.5	8.50	IL	OC	CR	78.0	46.8	46.8	142.0	55.5	48.6		1-Do	A	HS	4	Hk	CS	CS	H	N				
Sportprinz	R	2-2.92x2.57	42-6000	81	34.5	8.50	IL	OC	CR	78.0	46.8	46.8	142.0	55.5	48.6		1-Do	A	HS	4	Hk	CS	CS	H	N				
Opel	Fr	4-3.15x2.91	51-4126	106	90.8	6.90	IL	IH	G	90.4	49.8	50.0	174.0	63.8	58.7	5.50/13	1-Do	W	HS	3	Hk	CS	LS	H	8 1/2	10.6			
Kapitan	Fr	6-3.15x3.23	95-4300	114	150.9	7.50	IL	IH	G	110.2	54.2	54.0	186.8	70.3	59.1	6.70/13	1-Do	W	HS	3	Hk	CS	LS	H	12 1/2	14.5			
Porsche	R	4-3.25x2.91	60-4500	106	96.5	7.50	Op	OC	G	82.7	51.4	50.1	155.8	65.5	61.5	5.50/15	2-DD	A	HS	4	TT	TB	TB	H	N	13.7			
356A/1600S	R	4-3.25x2.91	75-5000	121	96.5	8.50	Op	OC	G	82.7	51.4	50.1	155.8	65.5	61.5	5.50/15	2-DD	A	HS	4	TT	TB	TB	H	N	13.7			
356A/1600GS	R	4-3.45x2.62	105-6500	147	97.0	9.00	Op	OC	G	82.7	51.4	50.																	

IMPORTED PASSENGER CARS—concluded

MAKE AND MODEL	ENGINE										CHASSIS																
	Location in Chassis	Number of Cylinders Bore and Stroke (In.)	Max. Brake Horsepower at Specified R.P.M.	B.M.E.P. at Max. Horsepower (Lb./Sq. In.)	Piston Displacement (Cu. In.)	Compression Ratio (To—1)	Cylinder Arrangement	Valve Location	Camshaft Drive	Wheelbase (In.)	TREAD (In.)		OVERALL DIMENSIONS (In.)				Tires (In.)	Carburetors—No. Used and Type	Cooling Medium	Shifting Method	No. of Forward Speeds	Final Drive Type	Front Suspension Type	Rear Suspension Type	Service Brakes	Cooling System Capacity (Qt.)	Fuel Tank Capacity (Gal.)
											Front	Rear	Length Including Bumpers and Bumper Guards	Width	Height— Road to Roof, No Load												
ITALY																											
Alfa Romeo... Giulietta	Fr	4-2.88x2.92	53-8200	103	78.8	.....	IL	OC	Ch	92.8	50.2	49.5	155.7	60.6	54.8	6.00/15	1-SU	W	HS	4	TT	CS	CS	HM	8 1/2	8.9
..... Giulietta T1	Fr	4-2.88x2.92	65-5500	117	78.6	.....	IL	OC	Ch	92.8	50.2	49.5	155.7	60.6	54.8	6.00/15	1-DU	W	HS	4	TT	CS	CS	HM	8 1/2	8.9
..... Giulietta Spider	Fr	4-2.88x2.92	80-6000	134	78.6	.....	IL	OC	Ch	85.8	50.2	49.5	150.0	61.6	52.1	6.00/15	1-DU	W	HS	4	TT	CS	CS	HM	8 1/2	11.7
..... Giulietta Sprint	Fr	4-2.88x2.92	80-6000	134	78.6	.....	IL	IH	Ch	92.8	50.2	49.5	155.0	59.8	51.0	6.00/15	1-DU	W	HS	4	TT	CS	CS	HM	8 1/2	11.7
..... Giulietta Spider Veloce	Fr	4-2.88x2.92	90-6000	151	78.6	.....	IL	OC	Ch	85.8	50.2	49.5	150.0	61.6	52.1	6.00/15	2-SU	W	HS	4	TT	CS	CS	HM	8 1/2	11.7
..... Giulietta Sprint Veloce	Fr	4-2.88x2.92	90-6000	151	78.6	.....	IL	IH	Ch	92.8	50.2	49.5	155.0	59.8	51.0	6.00/15	2-SU	W	HS	4	TT	CS	CS	HM	8 1/2	17.6
..... 2000	Fr	4-3.30x3.43	105-5300	128	120.5	8.25	IL	OC	Ch	106.0	54.6	53.4	184.0	68.3	53.4	6.40/15	1-DU	W	HS	5	TT	CS	CS	HM	9 1/2	9 1/2	
Ferrari... 250 Granturismo	Fr	12-2.84x2.29	240-7000	151	180.0	9.20	V	OC	Ch	101.5	52.8	52.6	186.0	67.5	51.9	6.00/16	3-DD	W	HS	4	TT	CT	LS	HM	7 1/2	19.8	
..... 410 Superamerica	Fr	12-3.43x2.85	400-6500	161	302.0	9.00	V	OC	Ch	101.5	56.7	56.5	183.3	68.3	53.0	6.50/16	3-DD	W	HS	4	TT	CT	LS	HM	.....	22.0
Fiat... 500	R	2-2.80x2.76	17-4000	115	29.2	7.00	IL	IH	Ch	72.4	44.1	47.7	116.9	55.0	55.2	4.70/12	1-SD	A	HS	4	.....	LS	CS	HM	N	5.5
..... 600 Sedan	R	4-2.38x2.20	22-4600	87	38.6	7.50	IL	IH	Ch	78.8	45.3	45.7	129.3	54.3	55.3	5.20/12	1-SD	W	HS	4	.....	LS	CS	H	4 1/2	7.1
..... 600 Multipla	R	4-2.38x2.20	22-4600	87	38.6	7.50	IL	IH	Ch	78.8	46.4	45.6	139.2	57.1	62.2	5.20/12	1-SD	W	HS	4	.....	CT	CS	H	9 1/2	7.6
..... 1100/103D Family Car	Fr	4-2.68x2.95	43-4800	107	66.5	7.00	IL	IH	Ch	92.1	48.6	47.9	149.2	57.4	58.9	5.60/14	1-SD	W	HS	4	Hk	CT	LT	H	4 1/2	10.0	
..... 1100/103D	Fr	4-2.68x2.95	43-4800	107	66.5	7.00	IL	IH	Ch	92.1	48.6	47.9	154.3	57.4	58.7	5.20/14	1-SD	W	HS	4	Hk	CT	LT	H	4 1/2	10.0	
..... 1200 2-Seater Roadster	Fr	4-2.83x2.95	55-5300	110	74.5	8.00	IL	IH	Ch	92.1	48.6	47.9	152.6	57.9	59.0	5.20/14	1-DD	W	HS	4	Hk	CT	LT	H	4 1/2	10.0	
..... 1200 Granluce	Fr	4-2.83x2.95	55-5300	110	74.5	8.00	IL	IH	Ch	99.1	48.6	47.9	154.3	57.4	57.8	5.20/14	1-DD	W	HS	4	Hk	CT	LT	H	4 1/2	10.0	
..... 1400B	Fr	4-3.23x2.60	58-4600	117	85.1	7.50	IL	IH	Ch	104.3	52.2	52.0	170.3	65.2	62.0	5.90/14	1-DD	W	HS	4	Hk	CT	CT	H	9 1/2	14.5	
..... 1900B Granluce	Fr	4-3.23x3.54	80-4000	135	117.0	7.50	IL	IH	Ch	104.3	52.2	52.2	170.2	65.8	60.0	6.40/14	1-DD	W	HS	5	Hk	CT	CT	H	9 1/2	14.5	
..... 1900B Sedan	Fr	4-3.23x3.54	80-4000	135	117.0	7.50	IL	IH	Ch	104.3	52.2	52.2	170.3	65.2	62.6	6.40/14	1-DD	W	HS	5	Hk	CT	CT	H	9 1/2	14.5	
Lancia... Flaminia Saloon	Fr	6-3.15x3.21	100-4800	110	150.0	7.80	V	OC	G	113.0	54.0	54.0	191.0	69.0	57.3	6.40/15	1-.....	W	HS	4	.....	CS	LS	H	10	15.3
..... Flaminia Sport	Fr	6-3.15x3.21	119-5200	122	150.0	9.00	V	OC	G	99.0	54.0	54.0	169.0	49.5	48.0	6.40/15	1-.....	W	HS	4	.....	CS	LS	H	10	15.3
..... Flaminia GT	Fr	6-3.15x3.21	119-5200	122	150.0	9.00	V	OC	G	99.0	54.0	54.0	178.0	64.0	51.0	6.40/15	1-.....	W	HS	4	.....	CS	LS	H	10	15.3
..... Flaminia Coupe	Fr	6-3.15x3.21	119-5200	122	150.0	9.00	V	OC	G	106.0	54.0	54.0	183.0	64.0	55.0	6.40/15	1-.....	W	HS	4	.....	CS	LS	H	10	15.3
JAPAN																											
Nissan... 210-S, L210-S	Fr	4-2.88x2.32	37-4600	123	80.2	7.50	IL	IH	Ch	87.4	46.1	46.5	152.8	57.7	59.1	5.00/15	1-SD	W	HS	4	Hk	LS	LS	H	5 1/2	8.0	
Prince... Skyline ALSI-1	Fr	4-2.95x3.31	60-4400	118	90.6	7.50	IL	IH	G	99.8	52.8	54.3	172.0	65.9	60.4	6.40/14	1-DD	W	HS	4	Hk	CS	LS	H	10 1/2	10.6	
Toyota... Toyopet Corona	Fr	4-2.56x2.95	33-4500	124	80.7	7.00	IL	L	G	94.5	48.0	46.4	154.0	57.9	61.2	5.60/14	1-SD	W	HS	3	Hk	CS	LS	H	7	8.0	
..... ST10	Fr	4-3.03x3.07	82-4500	154	88.5	7.50	IL	IH	G	99.6	52.2	53.9	171.9	66.8	61.0	6.40/15	1-DD	W	HS	3	Hk	CS	LS	H	8 1/2	12.4	
..... Toyopet Crown RS20	Fr	4-3.03x3.07	82-4500	154	88.5	7.50	IL	IH	G	99.6	52.2	53.9	171.9	66.8	61.0	6.40/15	1-DD	W	HS	3	Hk	CS	LS	H	8 1/2	12.4	
..... Toyopet Crown Custom	Fr	4-3.03x3.07	82-4500	154	88.5	7.50	IL	IH	G	99.6	52.2	53.9	171.9	66.8	61.0	6.40/15	1-DD	W	HS	3	Hk	CS	LS	H	8 1/2	12.4	
..... RS22L	Fr	4-3.03x3.07	82-4500	154	88.5	7.50	IL	IH	G	99.6	52.2	53.9	171.9	66.8	61.0	6.40/15	1-DD	W	HS	3	Hk	CS	LS	H	8 1/2	12.4	
SPAIN																											
S. E. A. T... 800	R	4-.....	19-4600	85	38.7	7.00	IL	IH	Ch	78.5	45.0	45.4	127.0	54.5	55.5	5.20/12	1-Da	W	HS	4	.....	LS	CS	H	4 1/2	7.1
..... 1400	Fr	4-3.21x2.98	44-4400	93	85.1	7.00	IL	IH	Ch	104.3	52.2	52.0	169.5	.....	62.0	5.90/14	1-DD	W	HS	4	TT	CS	CS	H	9 1/2	14.5
SWEDEN																											
SAAB... 93B	Fr	3-2.59x2.87	38-5000	86	46.0	7.30	IL	.....	.....	96.0	48.0	48.0	158.0	62.0	56.0	5.00/15	1-Da	W	HS	3	.....	CS	CS	H	4 1/2	9.5
Volvo... P4400	Fr	4-3.13x3.15	85-5500	125	97.6	8.20	IL	IH	G	102.5	51.0	51.8	173.0	63.0	66.0	6.40/15	2-SD	W	HS	3	Hk	CS	LS	H	8	9.5	
..... P54400	Fr	4-3.13x3.15	85-5500	125	97.6	8.20	IL	IH	G	102.5	51.0	51.8	177.0	62.0	61.5	5.90/15	2-SD	W	HS	4	Hk	CS	CS	H	8	9.5	

ABBREVIATIONS

1—Front only; rear, 5.00/15.
2—Varies with special coachwork built to customers order.

A—Air.

Au—Automatic.

BG—Bevel gears.

Ch—Chain.

CR—Connecting rod.

CS—Coil springs.

CT—Coil springs and torsion bars.

DD—Dual throat, downdraft.

De—De Dion.

Do—Downdraft.

DS—Dual throat, sidedraft.

DU—Dual throat, updraft.

Fb—Four barrel.

Fr—Front.

FW—Front wheel drive.

G—Gear.

H—Hydraulic.

HA—Hand shift or automatic.

HK—Hotchkiss.

HM—Hydraulic and mechanical.

Ho—Horizontal.

HP—Hydro-pneumatic.

HS—Hand shift.

HV—Hydraulic, vacuum assisted.

Hy—Hypoid.

IH—In head.

IL—In line.

Inj—Injectors.

IS—In head and side.

L—"L" head, valves at side.

LS—Leaf springs.

LT—Leaf springs and torsion bars.

M—Mechanical.

N—None.

OC—Overhead camshaft.

Op—Opposed.

Pr—Pre-selective.

R—Rear.

S—Single cylinder.

SA—Spiral axle.

SB—Spiral bevel.

SD—Side draft.

SD—Single throat, downdraft.

SH—Semi-floating, hypoid.

SS—Single throat, sidedraft.

SSH—Single throat, semi-horizontal.

St—Single throat.

SU—Single throat, updraft.

TB—Torsion bars.

TO—Twin overhead camshaft.

TR—Torque rods.

TT—Torque tube.

V—"V" type engine.

W—Variable.

W—Water.

1959... WHEEL TRACTORS

Line Number	TRACTOR MAKE AND MODEL	GENERAL				DRAW-BAR		OVERALL DIMENSIONS		TIRE SIZE (in.)		H.P. RATING		Nebraska Test Number	Forward Travel Speeds at Normal Governed Engine RPM with Standard Wheels		Reverse Travel Speeds at Normal Governed Engine RPM with Standard Wheels					
		Wheelbase (in.)	Minimum Turning Radius Outside (ft.)	Ground Clearance (in.)	Shipping Weight with Rubber Tires (Lb.)	TREAD (in.)		Lateral Adjustment (in.)	Height Above Ground (in.)	Length (in.)	Width (in.)	Height - To Highest Point (in.)	Front		Rear	Belt	Drawbar	Power Take-Off	No. of Speeds	Range (MPH)	No. of Speeds	Range (MPH)
						Minimum	Maximum															
1	Allis-Chalmers.....1B	57 1/2	7	12 1/2	2365	40 1/2	52 1/2	11 1/2	97 1/2	52 1/2	54 1/2	5.00/15	9.24	22.87	18.00	Op	3	3.50-10.00	1	3.80		
2	".....B	73 1/2	7 1/2	21 1/2	2060	40 1/2	52 1/2	22 1/2	12 1/2	110 1/2	52 1/2	4.00/15	9.24	22.87	19.51	Op	3	2.75-8.50	1	3.00		
3	".....CA	81 1/2	7 1/2	22 1/2	3000	52	60	14 1/2	14	124 1/2	67 1/2	5.00/15	10/24	26.62	23.55	Op	4	2.00-11.25	1	3.50		
4	".....G	68 1/2	8 1/2	17 1/2	1285	36	64	7 1/2	13	116	36 1/2	5.00/12	6.30	10.91	9.50	Op	4	1.60-6.91	1	1.96		
5	".....WD-45	88 1/2	8 1/2	28 1/2	4465	56	90	8 1/2	13	128	74 1/2	5.50/16	12/28	45.27	40.01	Op	4	2.40-11.25	1	3.00		
6	".....WD-46	88 1/2	8 1/2	29 1/2	4730	55 1/2	90 1/2	8 1/2	13	128	74 1/2	5.50/16	12/28	45.42	40.42	Op	4	2.40-11.25	1	3.17		
7	".....D-14	85 1/2	8 1/2	19 1/2	4175	54	80	10 1/2	12 1/2	128	69 1/2	5.50/16	11/26	35.65	32.19	Op	4	1.50-12.00	2	2.60-3.75		
8	".....D-17	93 1/2	9 1/2	21	5280	58 1/2	92 1/2	10 1/2	14 1/2	140 1/2	78 1/2	6.00/16	13/28	NT	NT	Op	4	1.80-12.00	2	2.40-3.50		
9	".....D-17D	95 1/2	9 1/2	21	5680	58 1/2	92 1/2	10 1/2	14 1/2	143	78 1/2	6.00/16	13/28	NT	NT	Op	4	1.80-12.00	2	2.40-3.50		
10	".....D-14LP	85 1/2	9 1/2	21 1/2	4220	51	80	10 1/2	13 1/2	128 1/2	67 1/2	5.50/16	11/26	33.23	29.61	Op	4	1.50-12.00	2	2.60-3.75		
11	".....D-17LP	93 1/2	9 1/2	21	5440	53	92 1/2	10 1/2	15 1/2	140 1/2	76 1/2	6.00/16	13/28	53.00	47.24	Op	4	1.80-12.00	2	2.40-3.50		
12	Brockway.....49D	76 1/2	10 1/2	20	3600	48	76	28 1/2	16	115	63	6.00/16	11/28	35.00	32.00	Op	4	2.16-12.00	1	1.72		
13	".....49G	76 1/2	10 1/2	20	3600	48	76	28 1/2	16	115	63	6.00/16	11/28	31.75	28.00	Op	4	2.16-15.00	1	1.69		
14	".....49K	76 1/2	10 1/2	20	3600	48	76	28 1/2	16	115	63	6.00/16	11/28	27.00	24.00	Op	4	2.16-15.00	1	1.69		
15	Case.....211B	84 1/2	7 1/2	19 1/2	2958	48	88	16	130	79 1/2	59 1/2	5.00/15	10/28	NT	NT	Op	4	2.70-12.90	1	3.20		
16	".....311B	84 1/2	7 1/2	21 1/2	3274	48	88	16	130	79 1/2	61	5.50/16	11/28	NT	NT	Op	4	2.80-13.40	1	3.30		
17	".....411B	84 1/2	7 1/2	21 1/2	3435	54	88	16	130	79 1/2	61	5.50/16	12/28	NT	NT	Op	4	0-10.90	2	0-2.80		
18	".....511B	87 1/2	7 1/2	25	4450	54	88	16	139	81 1/2	65 1/2	6.00/16	12.40/36	NT	NT	Op	12	0-16.70	3	1.90-5.40		
19	".....611B	87 1/2	7 1/2	25	4475	54	88	16	139	80 1/2	65 1/2	6.00/16	12.40/36	NT	NT	Op	8	0-11.20	2	0-2.80		
20	".....711B	92 1/2	8 1/2	26 1/2	5800	62	100 1/2	20 1/2	143 1/2	85 1/2	93 1/2	6.00/16	15.50/38	54.00	47.00	Op	4	1.40-13.70	2	1.70-6.20		
21	".....701B	92 1/2	8 1/2	26 1/2	6013	62	108	20 1/2	143 1/2	85 1/2	93 1/2	6.00/16	15.50/38	54.00	47.00	Op	4	1.40-13.70	2	1.70-6.20		
22	".....811B	92 1/2	8 1/2	26 1/2	6165	62	108	20 1/2	143 1/2	85 1/2	93 1/2	6.00/16	15.50/38	NT	NT	Op	8	0-18.00	2	0-6.20		
23	".....801B	92 1/2	8 1/2	26 1/2	6364	62	108	20 1/2	143 1/2	85 1/2	93 1/2	6.00/16	15.50/38	NT	NT	Op	8	0-18.00	2	0-6.20		
24	".....900B	93 1/2	8 1/2	13 1/2	7882	67 1/2	67 1/2	43 1/2	141	84	93 1/2	7.50/16	15/34	NT	NT	Op	6	2.70-13.90	1	3.20		
25	".....910B	93 1/2	8 1/2	13 1/2	7920	67 1/2	67 1/2	43 1/2	141	84	93 1/2	7.50/16	15/34	NT	NT	Op	6	2.50-12.50	1	2.90		
26	Caterpillar.....DW15	121 1/2	41 1/2	18 1/2	21530	NT	NT	NT	200 1/2	107 1/2	111	12/20	26.50/25	NT	NT	Op	5	2.70-29.10	1	4.10		
27	".....DW20	128	42	18 1/2	26545	NT	NT	NT	211 1/2	118	125 1/2	14/24	29.50/29	NT	NT	Op	5	1.80-25.10	1	3.70		
28	".....DW21	307	36	18	39360	NT	NT	NT	188	141	132	N	29.50/29	NT	NT	Op	5	2.30-20.50	1	3.00		
29	Cockshutt.....540	81	12 1/2	19 1/2	4295	48	76	8	Ad	120	66	60	5.50/16	11/28	NT	NT	Op	4	1.70-12.10	2	2.70-5.20	
30	".....550G	87	14 1/2	17	4500	53 1/2	92	12	Ad	132	74	74 1/2	5.50/16	11/38	NT	NT	Op	6	1.85-13.40	2	3.26-6.22	
31	".....550D	87	14 1/2	17	4560	53 1/2	92	12	Ad	132	74	74 1/2	5.50/16	11/38	NT	NT	Op	6	1.85-13.40	2	3.26-6.22	
32	".....560	87 1/2	14 1/2	17	5036	53 1/2	112	11 1/2	Ad	138	72 1/2	78	6.00/16	14/34	50.45	46.65	Op	6	1.81-13.20	2	3.19-6.08	
33	".....570G	87 1/2	14 1/2	17	5320	53 1/2	112	11 1/2	Ad	138	72 1/2	78	6.00/16	14/34	NT	NT	Op	6	1.81-13.20	2	3.19-6.08	
34	".....570D	87 1/2	14 1/2	17	6300	53 1/2	112	11 1/2	Ad	138	72 1/2	78	6.00/16	14/34	NT	NT	Op	6	1.81-13.20	2	3.19-6.08	
35	Deere, John.....330-S	70	21	2650	38 1/2	54 1/2	54 1/2	Ad	115 1/2	53 1/2	69 1/2	5.00/15	9/24	Op	4	1.63-12.00	1	1.63				
36	".....330-U	77 1/2	11	2750	40 1/2	56 1/2	61 1/2	Ad	119 1/2	55 1/2	65 1/2	5.00/15	9/24	Op	4	1.63-12.00	1	1.63				
37	".....430-H	80 1/2	32 1/2	3400	54	64	12	Ad	132	72	86	5.50/16	10/38	29.21	27.06	Op	4	1.63-6.25	1	2.50		
38	".....430-S	70	21	2750	38 1/2	54 1/2	54 1/2	Ad	114 1/2	55 1/2	73 1/2	5.00/15	9/24	Op	4	1.63-6.25	1	2.50				
39	".....430-T	82 1/2	14	3000	48	96	10 1/2	Ad	130 1/2	81 1/2	78 1/2	5.00/15	10/34	29.21	27.06	Op	4	1.63-6.25	1	2.50		
40	".....430-U	77 1/2	8 1/2	2847	40 1/2	56 1/2	6	Ad	119 1/2	59 1/2	68 1/2	5.00/15	10/24	29.21	27.06	Op	4	1.63-6.25	1	2.50		
41	".....430-V	72 1/2	26 1/2	3050	46	80	19 1/2	Ad	124	74	81 1/2	5.00/15	10/34	29.21	27.06	Op	4	1.63-6.25	1	2.50		
42	".....430-W	85 1/2	21	3000	48	96	6	16 1/2	130 1/2	85 1/2	74	5.00/16	12/26	29.21	27.06	Op	4	1.63-6.25	1	2.50		
43	".....440-I	85	20 1/2	3800	60	60	6	16 1/2	125 1/2	74 1/2	71 1/2	6.00/16	12/26	29.21	27.06	Op	4	2.00-6.82	1	2.91		
44	".....530-R	90	8 1/2	4960	56	88	8 1/2	16 1/2	132 1/2	86 1/2	83 1/2	5.50/16	12.40/38	38.58	34.31	Op	4	1.50-10.00	1	2.50		
45	".....630-R	90	8 1/2	5980	56	88	8 1/2	16 1/2	139	86 1/2	84 1/2	6.00/16	13.60/38	48.68	44.16	Op	4	1.50-11.50	1	3.00		
46	".....630-S	80 1/2	25 1/2	6480	62	80	8 1/2	16 1/2	123 1/2	86 1/2	81 1/2	6.00/16	15/30	48.68	44.16	Op	4	1.33-10.50	1	2.25		
47	".....630-H	90 1/2	16 1/2	3076	60	60	6	16 1/2	101 1/2	7 50/20	13 60 38	48.68	44.16	Op	4	1.50-11.50	1	3.00				
48	".....730-R	91 1/2	8 1/2	6790	60	80	8 1/2	16 1/2	135 1/2	86 1/2	88 1/2	6.00/16	15.50/38	59.12	53.05	Op	4	1.33-11.25	1	3.33		
49	".....730-S	82 1/2	14	7380	62	80	8 1/2	16 1/2	123 1/2	86 1/2	87 1/2	7.50/16	15/30	59.12	53.05	Op	4	1.33-11.00	1	3.25		
50	".....730-H	99 1/2	16 1/2	8070	60	90	8 1/2	16 1/2	151	86 1/2	101	7 50/20	15 50 38	59.12	53.05	Op	4	1.33-10.50	1	3.25		
51	".....730-R	91 1/2	8 1/2	7105	60	80	8 1/2	16 1/2	135 1/2	86 1/2	88 1/2	6.00/16	15.50/38	58.84	53.66	Op	4	1.33-11.25	1	3.33		
52	".....730-S	82 1/2	14	7790	62	80	8 1/2	16 1/2	123 1/2	86 1/2	87 1/2	7.50/16	15/30	58.84	53.66	Op	4	1.33-11.00	1	3.25		
53	".....730-H	99 1/2	16 1/2	8415	60	90	8 1/2	16 1/2	151	86 1/2	101	7 50/20	15 50 38	58.84	53.66	Op	4	1.33-10.50	1	3.25		
54	".....830-S	85 1/2	15 1/2	8745	64	68	35 1/2	20 1/2	142 1/2	86	81	7										

WHEEL TRACTORS ... 1959

Make and Model	ENGINE				FUEL		BELT PULLEY										CAPACITIES					Starting Method	Line Number					
	Number of Cylinders—Bore and Stroke (in.)	Piston Disp. (Cu. in.)	R.P.M. at Governed Speed	Valve Arrangement	Number of Main Bearings	Diameter of Main Bearings	Standard	Optional	Ignition Make	Carburetor or Injector Pump Make	Air Cleaner Make	Governor Make	Oiling System Type	Cooling System Type	Clutch—Make and Type	Final Drive—Type	Belt Pulley		Capacities									
																	Diameter (in.)	Face (in.)	Normal R.P.M.	Steering Type	Cooling System (Gal.)			Fuel Tank (Gal.)	Crankcase (Qts.)	Transmission (Qts.)	Final Drive Case (Qts.)	
Owens 18	4-3 1/2 x 3 1/2	125	1500	I	3	2 1/4	G		FM	Zen	Don	Owens	P	Pu	Rec	SP	SG	8	5 1/2	1130 FK	2	13	4	7	4	Ele	1	
Owens 8	4-3 1/2 x 3 1/2	125	1500	I	3	2 1/4	G	D	FM	Zen	Don	Owens	P	Pu	Rec	SP	SG	8	5 1/2	1130 FK	2	13	4	7	4	Ele	2	
Owens CE	4-3 1/2 x 3 1/2	125	1650	I	3	2 1/4	G		K	Zen	Don	Owens	P	Pu	Rec	SP	SG	8	5 1/2	1220	2	13	4	8 1/2	1 1/2	Ele	3	
Cont. N62	4-2 1/2 x 3 1/2	82	1800	L	2	2 1/2	G		DR	Mar	Don	Cont.	P	Pu	TS	Rec	SP	SG	8	4	1950 FK	1 1/2	5	3 1/2	8	1 1/2	Ele	4
Owens WD	4-4 x 4 1/2	226	1400	I	3	2 1/4	G	D	DR	Zen	Don	Owens	P	Pu	Rec	SP	SG	9	6 1/2	1260 WS	3 1/2	15	6	17	1 1/2	Ele	5	
Owens 149	6-3 1/2 x 4 1/2	230	1625	I	7	2 1/4	O		N	Bos	Uni	Bos	P	Pu	Rec	SP	SG	9	6 1/2	1463 WS	4 1/4	18	6	17	2	Ele	6	
Owens 17	4-3 1/2 x 3 1/2	148	1850	I	3	2 1/4	G		DR	Mar	Don	Owens	P	Pu	Rec	SP	SG	9	6 1/2	1384 FK	2 1/2	14	4	14 1/2	2	Ele	7	
Owens 17	4-4 x 4 1/2	226	1850	I	3	3	G		DR	Zen	Don	Owens	P	Pu	Rec	SP	SG	9	6 1/2	1384 FK	3	20 1/2	6	25	2 1/2	Ele	8	
Owens DA262	6-3 1/2 x 4 1/2	262	1850	I	7	2 1/4	O		DR	Zen	Don	Owens	P	Pu	Rec	SP	SG	9	6 1/2	1384 FK	4	20 1/2	6	25	2 1/2	Ele	9	
Owens 149	4-3 1/2 x 3 1/2	148	1850	I	3	2 1/4	LP		DR	Ens	Don	Owens	P	Pu	Rec	SP	SG	9	6 1/2	1384 FK	2 1/2	15 1/2	4	14 1/2	1 1/2	Ele	10	
Owens 226	4-4 x 4 1/2	226	1850	I	3	3	LP		DR	Ens	Don	Owens	P	Pu	Rec	SP	SG	9	6 1/2	1384 FK	3	22 1/2	6	28	2 1/2	Ele	11	
Cont. GD157	4-3 1/2 x 4 1/2	157	2000	I	3	2 1/2	O		AL	Bos	Don	Cont.	P	TS	Rec	SP	CH	8 1/2	6 1/4	1600 FK	5	12 1/2	5	14	4	Ele	12	
Cont. F162	4-3 1/2 x 4 1/2	162	2400	I	3	2 1/2	O		AL	Mar	Don	Cont.	P	TS	Rec	SP	CH	8 1/2	6 1/4	1800 FK	5	12 1/2	5	14	4	Ele	13	
Cont. F162	4-3 1/2 x 4 1/2	162	2400	I	3	2 1/2	K		AL	Mar	Don	Cont.	P	TS	Rec	SP	CH	8 1/2	6 1/4	1800 FK	5	12 1/2	5	14	4	Ele	14	
Owens 127	4-3 1/2 x 4 1/2	127	1900	I	3	2 1/4	G		LP	AL	Mar	Don	Owens	P	Pu	Au.	SP	SG	9 1/4	6 1/2	1290 FK	3 1/4	13	5	28	(a)	Ele	15
Owens 148	4-3 1/2 x 4 1/2	148	1900	I	3	2 1/4	G		LP	AL	Mar	Don	Owens	P	Pu	Au.	SP	SG	9 1/4	6 1/2	1290 FK	3 1/4	13	5	28	(a)	Ele	16
Owens 148	4-3 1/2 x 4 1/2	148	2000	I	3	2 1/4	G		LP	AL	M-Z	Don	Owens	P	Pu	Au.	SP	SG	10 1/4	6 1/2	1190 FK	3 1/4	13 1/2	5	28	(a)	Ele	17
Owens 164	4-3 1/2 x 4 1/2	164	2000	I	3	2 1/4	G		LP	AL	M-Z	Don	Owens	P	Pu	Au.	SP	SG	9 1/4	6 1/2	1140 FK	3 1/4	13 1/2	4	44	(a)	Ele	18
Owens 164	4-3 1/2 x 4 1/2	164	2250	I	3	2 1/4	G		LP	AL	M-Z	Don	Owens	P	Pu	TD	TC	SG	9 1/4	6 1/2	1290 FK	3 1/4	13 1/2	5	44	(a)	Ele	19
Owens 4-4x5	251	1500	I	5	3	3	O		LP, D	AL	Mar	Don	Owens	P	Pu	Rec	SP	SG	10 1/2	7 1/4	1166 FK	7 1/2	22	9	60	(a)	Ele	20
Owens 4-4x5	251	1500	I	5	3	3	O		D	N	Bos	Don	Owens	P	Pu	Rec	SP	SG	10 1/2	7 1/4	1166 FK	7 1/2	22	9	60	(a)	Ele	21
Owens 4-4x5	251	1500	I	5	3	3	G		O	AL	Mar	Don	Owens	P	Pu	TD	TC	SG	10 1/2	7 1/4	1128 FK	7 1/2	22	9	60	(a)	Ele	22
Owens 4-4x5	251	1500	I	5	3	3	O			N	Bos	Don	Owens	P	Pu	TD	TC	SG	10 1/2	7 1/4	1128 FK	7 1/2	22	9	60	(a)	Ele	23
Owens 800	6-4 x 5	377	1500	I	7	3	LP		N	Bos	Don	Owens	P	Pu	Owens	SO	CH	13 1/2	8 1/2	944 SA	10 1/2	28	14	64	(a)	Ele	24	
Owens 800	6-4 x 5	377	1350	I	7	3	LP		AL	Ens	Don	Owens	P	Pu	Owens	SO	CH	13 1/2	8 1/2	944 SA	10 1/2	28	14	64	(a)	Ele	25	
Owens D362F	6-5 1/2 x 6 1/2	805	2000	I	7	4 1/2	O		N	Owens	Don	Owens	P	Pu	Owens	DP	SH				20	75	33	82	(a)	EG	26	
Owens D377F	6-5 1/2 x 6 1/2	805	1800	I	7	4 1/2	O		N	Owens	Don	Owens	P	Pu	Owens	DP	SH				22 1/2	90	33	112	(a)	EG	27	
Owens DW21	6-5 1/2 x 6 1/2	805	1800	I	7	4 1/2	O		N	Owens	Don	Owens	P	Pu	Owens	DP	SH				22 1/2	100	33	108	(a)	EG	28	
Cont. F162	4-3 1/2 x 4 1/2	163	1800	L	3	2 1/4	G		DR	Zen	Don	Nov	P	Pu	BB	SP	SG	9	6 1/2	1064 DA	3	13 1/2	4	25	(a)	Ele	29	
Her. G0198	4-3 1/2 x 4 1/2	198	1650	I	5	2 1/2	G		DR	Zen	Don	Nov	P	Pu	BB	SP	SG	10	6 1/2	1195 DFS	4 1/2	19 1/2	4 1/2	25	(a)	Ele	30	
Her. DD198	4-3 1/2 x 4 1/2	198	1650	I	5	2 1/2	O		N	Bos	Don	Nov	P	Pu	BB	SP	SG	10	6 1/2	1195 DFS	4 1/2	19 1/2	4 1/2	25	(a)	Ele	31	
Per. 42700	4-4 1/2 x 4 1/2	270	1650	I	3	3	O		N	Luc	Don	Luc	P	Pu	BB	SP	SG	10	8 1/2	1195 DFS	3 1/2	30	8 1/2	36	(a)	Ele	32	
Her. G0298	6-3 1/2 x 4 1/2	298	1650	I	7	2 1/2	G		DR	Zen	Don	Nov	P	Pu	BB	SP	SG	10	8 1/2	1195 DFS	4 1/2	30	8 1/2	36	(a)	Ele	33	
Her. DD298	6-3 1/2 x 4 1/2	298	1650	I	7	2 1/2	O		N	Bos	Don	Nov	P	Pu	BB	SP	SG	10	8 1/2	1195 DFS	4 1/2	30	8 1/2	36	(a)	Ele	34	
Owens 330	2-4 x 4	101	1650	I	2	2 1/2	G	O	DR	Mar	Don	Owens	P	TS	Au.	SP	SG	9 1/4	6 1/2	1248 DA	3 1/2	10 1/2	5	8	3 1/2	Ele	35	
Owens 330	2-4 x 4	101	1650	I	2	2 1/2	G	O	DR	Mar	Don	Owens	P	TS	Au.	SP	SG	9 1/4	6 1/2	1248 DA	3 1/2	10 1/2	5	8	2 1/2	Ele	36	
Owens 430	2-4 1/2 x 4	113	1850	I	2	2 1/2	G	O	DR	Mar	Don	Owens	P	Pu	Au.	SP	SG	9 1/4	6 1/2	1270 DA	2 1/2	10 1/2	5	8	4	Ele	37	
Owens 430	2-4 1/2 x 4	113	1850	I	2	2 1/2	G	LP, O	DR	Mar	Don	Owens	P	Pu	Au.	SP	SG	9 1/4	6 1/2	1270 DA	2 1/2	10 1/2	5	8	3 1/2	Ele	38	
Owens 430	2-4 1/2 x 4	113	1850	I	2	2 1/2	G	LP, O	DR	Mar	Don	Owens	P	Pu	Au.	SP	SG	9 1/4	6 1/2	1270 DF	2 1/2	10 1/2	5	8	4	Ele	39	
Owens 430	2-4 1/2 x 4	113	1850	I	2	2 1/2	G	LP, O	DR	Mar	Don	Owens	P	Pu	Au.	SP	SG	9 1/4	6 1/2	1270 DA	2 1/2	10 1/2	5	8	3 1/2	Ele	40	
Owens 430	2-4 1/2 x 4	113	1850	I	2	2 1/2	G	LP, O	DR	Mar	Don	Owens	P	Pu	Au.	SP	SG	9 1/4	6 1/2	1270 DA	2 1/2	10 1/2	5	8	3 1/2	Ele	41	
Owens 430	2-4 1/2 x 4	113	1850	I	2	2 1/2	G	LP, O	DR	Mar	Don	Owens	P	Pu	Au.	SP	SG	9 1/4	6 1/2	1270 DA	2 1/2	10 1/2	5	9	7	Ele	42	
Owens 440	2-4 1/2 x 4	113	1850	I	2	2 1/2	G	O	DR	Mar	Don	Owens	P	Pu	Au.	SP	SG	9 1/4	6 1/2	1270 SA	2 1/2	10 1/2	5	9 1/2	7	Ele	43	
Owens 530	2-4 1/2 x 5 1/2	190	1375	I	2	2 1/2	G	LP, D	DR	Mar	Don	Owens	P	Pu	Owens	MD	SG	9 1/4	7 1/4	1325 FK	4	18	7	18	(a)	Ele	44	
Owens 630	2-5 1/2 x 6 1/2	303	1125	I	2	2 1/2	G	LP, D	DR	Mar	Don	Owens	P	Pu	Owens	MD	SG	12 1/2	7 1/4	1125 FK	6 1/2	22 1/2	8	24	(a)	Ele	45	
Owens 630	2-5 1/2 x 6 1/2	303	1125	I	2	2 1/2	G	LP, D	DR	Mar	Don	Owens	P	Pu	Owens	MD	SG	12 1/2	7 1/4	1125 SA	6 1/2	22 1/2	8	24	(a)	Ele	46	
Owens 630	2-5 1/2 x 6 1/2	303	1125	I	2	2 1/2	G	LP, D	DR	Mar	Don	Owens	P	Pu	Owens	MD	CH	12 1/2	7 1/4	1125 DA	6 1/2	22 1/2	8	24	(a)	Ele	47	
Owens 620	2-5 1/2 x 6 1/2	303	1125	I	2	2 1/2	G	LP, D	DR	Mar	Don	Owens	P	Pu	Owens	MD	SG	12 1/2	7 1/4	1125 SA	7	20	8	24	(a)	Ele	48	
Owens 730	2-6 1/2 x 6 1/2	381	1125	I	2	3 1/4	G	LP, D	DR	Mar	Don	Owens	P	Pu	Owens	MD												

1959 MODELS OF TRACTORS . . .

Line Number	TRACTOR MAKE AND MODEL	GENERAL				DRAW-BAR		OVERALL DIMENSIONS			TIRE SIZE (In.)		H.P. RATING		Forward Travel Speeds at Normal Governed Engine RPM with Standard Wheels		Reverse Travel Speeds at Normal Governed Engine RPM with Standard Wheels					
		Wheelbase (In.)	Minimum Turning Radius Outside (Ft.)	Ground Clearance (In.)	Shipping Weight with Rubber Tire (Lb.)	TREAD (In.)		Lateral Adjustment (In.)	Height Above Ground (In.)	Length (In.)	Width (In.)	Height-To-Highest Point (In.)	Front	Rear	Belt	Drawbar	Nebraska Test Number	Power Take-Off	No. of Speeds	Range (MPH)	No. of Speeds	Range (MPH)
						Minimum	Maximum															
1	International Cub Le-Boy	82	8	14	1600	40	56	22 1/2	Ad	97	48	56	4.00/12	8/24	10.75	10.08	575	Op	3	2.40-7.30	1	2.70
2	140	71	8 1/2	22	2720	40	68	18 1/2	Ad	107	56	82	5.00/15	9/24	24.27	22.18	666	Op	4	1.90-12.80	1	3.10
3	240-U	75	10 1/2	13	3140	48	76	18 1/2	Ad	116	63	88	5.50/16	11/24	32.24	26.91	668	Op	4	1.80-11.80	1	2.60
4	340-U	74	9	13	3770	48	76	18	Ad	116	63	60	5.50/16	12/40/28	35.24	32.41	634	Op	10	1.20-16.10	2	1.50-2.20
5	460-U	78 1/2	10 1/2	19	4410	48	76	18	Ad	128	64	81	5.50/16	11/28	51.64	48.15	674	Op	10	1.20-16.80	2	1.50-2.30
6	480-U	78 1/2	10 1/2	19	4580	48	76	18	Ad	128	64	81	5.50/16	11/28	52.43	48.16	673	Op	10	1.80-16.80	2	1.50-2.30
7	560	85 1/2	12	15	5800	58	70	18	Ad	144	74	95	6.50/18	14/30	65.00	56.00	NT	Op	10	1.40-16.20	2	1.90-2.10
8	660	85 1/2	12	15	5880	58	70	18	Ad	144	74	95	6.50/18	14/30	62.00	57.00	NT	Op	10	1.40-16.20	2	1.90-2.70
9	660	85 1/2	12 1/2	16	7250	60	80	18 1/2	Ad	144	78	100 1/2	7.50/18	15/34	75.00	68.00	NT	Op	10	1.50-16.50	2	1.90-2.60
10	660	85 1/2	12 1/2	16	7430	60	80	18 1/2	Ad	144	78	100 1/2	7.50/18	15/34	75.00	68.00	NT	Op	10	1.50-16.50	2	1.90-2.80
11	Massey-Ferguson MF-202 Ind.	75	8	13	2645	48	76	N	N	113 1/2	63 1/2	55	6.00/16	11/28			NT	St	6	1.23-13.49	2	1.64-6.55
12	MF-202 Ind. Std.	75	8	13	2960	48	76	17 1/2	Ad	119 1/2	63 1/2	55	6.00/16	11/28			NT	St	6	1.23-13.49	2	1.64-6.55
13	MF-303	85 1/2	13 1/2	11 1/2	5260	64 1/2	64 1/2	19 1/2	Ad	133	78 1/2	57	7.50/15	13/24	49.20	34.80	NT	Op	10	1.17-11.30	2	1.54-2.66
14	MF-50-Std-G	81 1/2	8	12 1/2	3100	48	76	17 1/2	Ad	120	63	57	5.50/16	11/28	28.99	23.75	595	St	6	1.33-14.57	2	1.77-7.09
15	MF-50-Std-LPG	81 1/2	8	12 1/2	3200	48	76	17 1/2	Ad	120	63	57	5.50/16	11/28	28.45	23.06	595	St	6	1.33-14.57	2	1.77-7.09
16	MF-50-TS-G	85 1/2	8	18 1/2	3229	48	76	17 1/2	Ad	127 1/2	63 1/2	63 1/2	7.50/10	10/38	28.99	23.75	595	St	6	1.45-15.98	2	1.93-7.75
17	MF-50-TS-LPG	85 1/2	8	18 1/2	3329	48	76	17 1/2	Ad	127 1/2	63 1/2	63 1/2	7.50/10	10/38	28.45	23.06	595	St	6	1.45-15.98	2	1.93-7.75
18	MF-50-TT-G	84 1/2	8	18 1/2	3195	48	76	17	Ad	127 1/2	63 1/2	63 1/2	5.50/16	10/38	28.99	23.75	595	St	6	1.45-15.98	2	1.93-7.75
19	MF-50-TT-LPG	84 1/2	8	18 1/2	3295	48	76	17 1/2	Ad	127 1/2	63 1/2	63 1/2	5.50/16	10/38	28.45	23.06	595	St	6	1.45-15.98	2	1.93-7.75
20	MF-65-Std-G	84 1/2	8 1/2	20 1/2	3513	52	68	17 1/2	Ad	131	72	57	6.00/16	12/28	40.72	32.66	595	St	6	1.25-13.77	2	1.70-6.82
21	MF-65-Std-LPG	84 1/2	8 1/2	20 1/2	3648	52	68	17 1/2	Ad	131	72	57	6.00/16	12/28	38.06	30.65	595	St	6	1.25-13.77	2	1.70-6.82
22	MF-65-HC-G	84 1/2	8 1/2	20 1/2	3677	52	68	17 1/2	Ad	131	72	57	6.00/16	12/28	40.72	32.66	595	St	6	1.30-14.26	2	1.77-7.06
23	MF-65-HC-LPG	84 1/2	8 1/2	20 1/2	3802	52	68	17 1/2	Ad	131	72	57	6.00/16	12/28	38.06	30.65	595	St	6	1.30-14.26	2	1.77-7.06
24	MF-65-TS-G	87 1/2	8 1/2	27 1/2	3605	52	68	17 1/2	Ad	139	72	63 1/2	7.50/10	11/38	40.72	32.66	595	St	6	1.30-14.26	2	1.77-7.06
25	MF-65-TS-LPG	87 1/2	8 1/2	27 1/2	3730	52	68	17 1/2	Ad	139	72	63 1/2	7.50/10	11/38	38.06	30.65	595	St	6	1.30-14.26	2	1.77-7.06
26	MF-65-TT-G	86 1/2	8 1/2	27 1/2	3571	52	68	17 1/2	Ad	139	72	63 1/2	5.50/16	11/38	40.72	32.66	595	St	6	1.30-14.26	2	1.77-7.06
27	MF-65-TT-LPG	86 1/2	8 1/2	27 1/2	3696	52	68	17 1/2	Ad	139	72	63 1/2	5.50/16	11/38	38.06	30.65	595	St	6	1.30-14.26	2	1.77-7.06
28	McCormick Cub	69	8 1/2	20	1600	40	56	22 1/2	Ad	99	48	63	4.00/12	8/24	10.75	10.08	575	Op	3	2.40-7.30	1	2.70
29	140	71	8 1/2	22	2720	40	68	18 1/2	Ad	107	56	82	5.00/15	9/24	24.27	22.18	666	Op	4	1.90-12.80	1	3.10
30	140HC	72	8 1/2	27	2870	48	68	18 1/2	Ad	115	61	89	4.00/19	9/36	24.00	22.00	NT	Op	4	2.60-16.80	1	4.00
31	240	82	7 1/2	23 1/2	3340	48	80	18 1/2	Ad	121	61	89	5.00/15	11/20/36	32.22	28.87	657	Op	4	2.20-14.70	1	3.50
32	340	80	7 1/2	24 1/2	4250	48	92	18	Ad	120	84	91	5.00/15	12/40/38	36.12	32.68	665	Op	10	1.20-16.60	2	1.50-2.30
33	460	95	8	25 1/2	4900	48	93	18	Ad	130 1/2	83 1/2	95	5.50/16	12/40/38	51.63	47.24	670	Op	10	1.70-16.60	2	2.20-3.20
34	460	95	8	25 1/2	5080	48	93	18	Ad	130 1/2	83 1/2	95	5.50/16	12/40/38	52.19	47.99	672	Op	10	1.70-16.60	2	2.20-3.20
35	460HC	100 1/2	12	34	5620	62	74	30	Ad	154	85 1/2	107	6.00/20	11/38	51.50	47.00	NT	Op	10	1.70-15.90	2	2.10-3.10
36	460HC	100 1/2	12	34	5800	62	74	30	Ad	154	85 1/2	107	6.00/20	11/38	51.50	47.00	NT	Op	10	1.70-15.90	2	2.10-3.10
37	560	98	8 1/2	26 1/2	5780	50	94	18	Ad	141	84 1/2	99 1/2	6.00/16	12/40/38	65.25	56.47	671	Op	10	1.50-16.60	2	1.90-2.80
38	560	98	8 1/2	26 1/2	5960	50	94	18	Ad	141	84 1/2	99 1/2	6.00/16	12/40/38	62.60	56.67	669	Op	10	1.50-16.60	2	1.90-2.80
39	560HC	100 1/2	12	34	6530	62	74	30	Ad	155	85 1/2	112 1/2	6.00/20	12/38	65.00	59.00	NT	Op	10	1.50-16.90	2	1.90-2.90
40	560HC	100 1/2	12	34	6710	62	74	30	Ad	155	85 1/2	112 1/2	6.00/20	12/38	62.00	57.00	NT	Op	10	1.50-16.90	2	1.90-2.90
41	Michigan 180TD	84	21 1/2	15	28800	81	81	26	205	110	103	23.50/25	23.50/25		165.00				4	0-27.0	4	0-27.0
42	280TD	106	27 1/2	15	45500	96	96	26	255	123	130	26.50/25	26.50/25		262.00				4	0-28.0	4	0-28.0
43	380TD	122	29 1/2	14	66000	106	106	26	264	138	136	29.50/29	29.50/29						4	0-25.0	4	0-25.0
44	480TD	138	34	19	82000	106	112	33	331	140	140	35.50/33	35.50/33						4	0-28.9	4	0-28.9
45	Minneapolis-Moline Uni-L	104 1/2	11 1/2	12	3922	83 1/2	83 1/2	19 1/2	Ad	143 1/2	105 1/2	82 1/2	11/24	7.50/18			NT		3	2.10-10.10	1	2.00
46	335-Util.	78	9 1/2	18	3070	48	76	Ad	199 1/2	113 1/2	58 1/2	5.50/16	10/24		35.07	31.41	624	Op	5	2.72-15.09	1	4.17
47	335-U	78 1/2	9 1/2	23	3268	48	76	Ad	20 1/2	124 1/2	74 1/2	5.50/16	12/40/36		35.07	31.41	624	Op	5	3.66-20.26	1	5.60
48	335-E	85 1/2	10 1/2	22 1/2	3538	48	76	Ad	20 1/2	124 1/2	74 1/2	5.50/16	12/40/36		35.07	31.41	624	Op	5	3.66-20.26	1	5.60
49	335-N	78	10 1/2	23	3275	48	76	Ad	20 1/2	119 1/2	74 1/2	5.50/16	12/40/36		35.07	31.41	624	Op	5	3.66-20.26	1	5.60
50	335-Ind.	75 1/2	10 1/2	12 1/2	3355	56	76	Ad	199 1/2	113 1/2	69 1/2	6.00/16	10/24		40.00	35.00	NT	Op	5	3.48-19.30	1	5.34
51	445-Util.	81 1/2	10 1/2	20	3450	56	84	Ad	125 1/2	121 1/2	69 1/2	5.50/16	13/60/28		44.19	40.24	579	Op	5	2.69-14.88	1	4.11
52	445-Util.																					

... WHEEL TYPE—continued

Make and Model	ENGINE						FUEL												BELT PULLEY		CAPACITIES						Line Number	
	Number of Cylinders—Bore and Stroke (In.)	Piston Disp. (Cu. In.)	R.P.M. at Governed Speed	Valve Arrangement	Number of Main Bearings	Diameter of Main Bearings	Standard	Optional	Ignition Make	Carburetor or Injector Pump Make	Air Cleaner Make	Governor Make	Oiling System Type	Cooling System Type	Clutch—Make and Type	Final Drive—Type	Pulley		Normal R.P.M.	Steering Type	Cooling System (Gal.)	Fuel Tank (Gal.)	Crankcase (Qts.)	Transmission (Qts.)	Final Drive Case (Qts.)	Starting Method		
																	Diameter (In.)	Face (In.)										
Own.....C60	4-2 1/2 x 2 1/2	60	1800	L	3	1 1/2	G		Own	Own	Don	Own	P	TS	A-R	SP	SG	7 1/2	4 1/2	1487 FK	2 1/2	7 1/2	3	1 1/2	3	H-E	1	
Own.....C123	4-3 1/4 x 4	123	1400	L	3	2 1/4	G	D	Own	M-Z	D-U	Own	P	Pu	A-R	SP	SG	8 1/2	6	1157 FK	3 1/2	11	5	5	3	Ele	2	
Own.....C123	4-3 1/4 x 4	123	2000	L	3	2 1/4	G	D	Own	M-Z	D-U	Own	P	Pu	A-R	SP	SG	7	6	1652 FK	3 1/2	16 1/2	5	20	3	Ele	3	
Own.....C135	4-3 1/4 x 4	135	2000	L	3	2 1/4	G		Own	Own	Ros	Own	P	Pu	Own	SP	SG	11	7 1/2	1082 FK	3 1/2	15 1/2	5	40	4	Ele	4	
Own.....C221	6-3 3/4 x 3 3/4	221	1800	L	4	2 1/2	G	LP	Int	Int	Don	Int	P	Pu	O-R	SP	SG	11	7 1/2	1078 FK	4 1/2	23	9	40	5	Ele	5	
Own.....D236	6-3 3/4 x 3 3/4	236	1800	L	4	2 1/2	G	LP	N	Ros	D-U	Own	P	Pu	O-R	SP	SG	11	7 1/2	1078 FK	5 1/2	23	9	40	6	Ele	6	
Own.....D263	6-3 3/4 x 4	263	1800	L	4	2 1/2	G	LP	N	Own	Own	Own	P	Pu	O-R	SP	SG	11	7 1/2	1042 FK	4	33	9	64	7	Ele	7	
Own.....D282	6-3 3/4 x 4	282	1800	L	4	2 1/2	G	LP	N	Ros	D-U	Own	P	Pu	O-R	SP	SG	11	7 1/2	1042 FK	5 1/2	33	9	64	8	Ele	8	
Own.....D263	6-3 3/4 x 4	263	2400	L	4	2 1/2	G	LP	N	Own	Own	Own	P	Pu	O-R	SP	PL	11	7 1/2	1054 FK	4	33	9	64	9	Ele	9	
Own.....D282	6-3 3/4 x 4	282	2400	L	4	2 1/2	G	LP	N	Own	Own	Own	P	Pu	O-R	SP	PL	11	7 1/2	1054 FK	5	33	9	64	10	Ele	10	
Cont.....Z134	4-3 3/4 x 3 3/4	134	2000	L	3	2 1/4	G		DR	Mar	Don	Nov	P	Pu	Roc	SP	SB	9	6 1/2	1350 SA	2 1/2	14	5	36		Ele	11	
Cont.....Z134	4-3 3/4 x 3 3/4	134	2000	L	3	2 1/4	G		DR	Mar	Don	Nov	P	Pu	Roc	SP	SB	9	6 1/2	1350 SA	2 1/2	14	5	32		Ele	12	
Own.....E206	4-3 1/4 x 4	206	2000	L	3	2 1/4	G		AL	Mar	Don	Own	P	Pu	TC	SG	13 1/2	9	876 FK	5 1/2	23	7	32	(a)	Ele	13		
Cont.....Z134	4-3 3/4 x 3 3/4	134	2000	L	3	2 1/4	G		DR	Mar	Don	Nov	P	Pu	Au	DSP	SB	9	6 1/2	1350 Ad	2 1/2	17	5	32	(a)	Ele	14	
Cont.....ZB134	4-3 3/4 x 3 3/4	134	2000	L	3	2 1/4	LP		DR	Zen	Don	Nov	P	Pu	Au	DSP	SB	9	6 1/2	1350 Ad	2 1/2	16	5	32	(a)	Ele	15	
Cont.....Z134	4-3 3/4 x 3 3/4	134	2000	L	3	2 1/4	G		DR	Mar	Don	Nov	P	Pu	A-R	DSP	SB	9	6 1/2	1350 FO	2 1/2	17	5	32	(a)	Ele	16	
Cont.....ZB134	4-3 3/4 x 3 3/4	134	2000	L	3	2 1/4	LP		DR	Zen	Don	Nov	P	Pu	A-R	DSP	SB	9	6 1/2	1350 SA	2 1/2	17	5	32	(a)	Ele	17	
Cont.....Z134	4-3 3/4 x 3 3/4	134	2000	L	3	2 1/4	G		DR	Mar	Don	Nov	P	Pu	A-R	DSP	SB	9	6 1/2	1350 FO	2 1/2	17	5	32	(a)	Ele	18	
Cont.....ZB134	4-3 3/4 x 3 3/4	134	2000	L	3	2 1/4	LP		DR	Zen	Don	Nov	P	Pu	A-R	DSP	SB	9	6 1/2	1350 SA	2 1/2	17	5	32	(a)	Ele	19	
Cont.....G176	4-3 1/4 x 4	176	2000	L	3	2 1/4	G		DR	Mar	Don	Nov	P	Pu	Au	DSP	SG	9	6	1356 FK	2 1/2	17	5	32	3 1/2	Ele	20	
Cont.....G176	4-3 1/4 x 4	176	2000	L	3	2 1/4	G		DR	Zen	Don	Nov	P	Pu	Au	DSP	SG	9	6	1356 FK	2 1/2	17	5	32	3 1/2	Ele	21	
Cont.....G176	4-3 1/4 x 4	176	2000	L	3	2 1/4	G		DR	Mar	Don	Nov	P	Pu	Au	DSP	SG	9	6	1356 FK	2 1/2	17	5	32	3 1/2	Ele	22	
Cont.....G176	4-3 1/4 x 4	176	2000	L	3	2 1/4	G		DR	Zen	Don	Nov	P	Pu	Au	DSP	SG	9	6	1356 FK	2 1/2	17	5	32	3 1/2	Ele	23	
Cont.....G176	4-3 1/4 x 4	176	2000	L	3	2 1/4	G		DR	Mar	Don	Nov	P	Pu	Au	DSP	SG	9	6	1356 FO	2 1/2	17	5	32	3 1/2	Ele	24	
Cont.....G176	4-3 1/4 x 4	176	2000	L	3	2 1/4	G		DR	Zen	Don	Nov	P	Pu	Au	DSP	SG	9	6	1356 FO	2 1/2	17	5	32	3 1/2	Ele	25	
Cont.....G176	4-3 1/4 x 4	176	2000	L	3	2 1/4	G		DR	Mar	Don	Nov	P	Pu	Au	DSP	SG	9	6	1356 SA	2 1/2	17	5	32	3 1/2	Ele	26	
Cont.....G176	4-3 1/4 x 4	176	2000	L	3	2 1/4	LP		DR	Zen	Don	Nov	P	Pu	Au	DSP	SG	9	6	1356 SA	2 1/2	17	5	32	3 1/2	Ele	27	
Int.....C60	4-2 1/2 x 2 1/2	60	1800	L	3	1 1/2	G		Int	Int	Don	Int	P	TS	A-R	SP	SG	7 1/2	4 1/2	1487 FK	2 1/2	7 1/2	3	1 1/2	1 1/2	H-E	28	
Int.....C123	4-3 1/4 x 4	123	1400	L	3	2 1/4	G	D	Int	M-Z	D-U	Int	P	Pu	A-R	SP	SG	8 1/2	6	1157 FK	3 1/2	11	5	5	3	Ele	29	
Int.....C123	4-3 1/4 x 4	123	2000	L	3	2 1/4	G	D	Int	M-Z	D-U	Int	P	Pu	A-R	SP	SG	7	6	1652 FK	3 1/2	16 1/2	5	20	N	Ele	30	
Int.....C135	4-3 1/4 x 4	135	2000	L	3	2 1/4	G		Int	M-Z	D-U	Int	P	Pu	Int	SP	SG	11	7 1/2	1082 SA	3 1/2	15 1/2	5	40	N	Ele	31	
Int.....C221	6-3 3/4 x 3 3/4	221	1800	L	4	2 1/2	G	LP	Int	Int	Don	Int	P	Pu	I-R	SP	SG	11	7 1/2	1078 SA	4 1/2	23	9	40	N	Ele	32	
Int.....D236	6-3 3/4 x 3 3/4	236	1800	L	4	2 1/2	G	LP	N	Ros	D-U	Ros	P	Pu	I-R	SP	SG	11	7 1/2	1078 SA	5 1/2	23	9	40	N	Ele	33	
Int.....D236	6-3 3/4 x 3 3/4	221	1800	L	4	2 1/2	G	LP	Int	Int	Don	Int	P	Pu	I-R	SP	CH	11	7 1/2	1078 FK	4 1/2	33	9	40	6	Ele	34	
Int.....D263	6-3 3/4 x 4	263	1800	L	4	2 1/2	G	LP	N	Ros	D-U	Ros	P	Pu	I-R	SP	CH	11	7 1/2	1078 FK	5 1/2	33	9	40	6	Ele	35	
Int.....D263	6-3 3/4 x 4	263	1800	L	4	2 1/2	G	LP	N	Ros	D-U	Ros	P	Pu	I-R	SP	CH	11	7 1/2	1042 SA	4	33	9	64	N	Ele	36	
Int.....D282	6-3 3/4 x 4	282	1800	L	4	2 1/2	G	LP	N	Int	Int	Don	Int	P	Pu	I-R	SP	CH	11	7 1/2	1042 FK	4	33	9	64	6	Ele	37
Int.....D282	6-3 3/4 x 4	282	1800	L	4	2 1/2	G	LP	N	Ros	D-U	Ros	P	Pu	I-R	SP	CH	11	7 1/2	1042 FK	5 1/2	33	9	64	6	Ele	38	
Cum.....JT681	6-4 1/2 x 5	401	2200	7	3 3/4	O			N	Cum			P	Pu	Cla	TC	IG			DA	50					Ele	40	
Cum.....NT681	6-5 1/2 x 6	743	2100	7		O			N	Cum			P	Pu	Cla	TC	IG			DA	120					Ele	42	
Cum.....NT681	6-5 1/2 x 6	743	2300	7		O			N	Cum			P	Pu	Cla	TC	IG			DA	180					Ele	43	
Cum.....VT12	12 5 1/2 x 6	1486	2100	7		O			N	Cum			P	Pu	Cla	TC	IG			DA	200					Ele	44	
Own.....V206B	4-3 3/4 x 5	206	1550	L	2		G		DR	Mar	Don	Own	P	Pu	Own	SP			FO	4 1/2	14	6	10	(a)	Ele	45		
Own.....165A	4-3 3/4 x 4	165	1600	L	3	(b)	G	LP	DR	Mar	Don	Nov	P	Pu	Roc	SP	SG	8 1/2	6 1/2	1420 Ad	2 1/2	14	6	24	(a)	Ele	46	
Own.....165A	4-3 3/4 x 4	165	1600	L	3	(b)	G	LP	DR	Mar	Don	Nov	P	Pu	Roc	SP	SG	8 1/2	6 1/2	1420 SA	2 1/2	14	6	24	(a)	Ele	47	
Own.....165A	4-3 3/4 x 4	165	1600	L	3	(b)	G	LP	DR	Mar	Don	Nov	P	Pu	Roc	SP	SG	8 1/2	6 1/2	1420 Ad	2 1/2	14	6	24	(a)	Ele	48	
Own.....165A	4-3 3/4 x 4	165	1600	L	3	(b)	G	LP	DR	Mar	Don	Nov	P	Pu	Roc	SP	SG	8 1/2	6 1/2	1420 FO	2 1/2	14	6	24	(a)	Ele	49	
Own.....165A	4-3 3/4 x 4	165	1900	L	3	(b)	G		DR	Mar	Don	Nov	P	Pu	Roc	SP	SG	8 1/2	6 1/2	1800 FK	2 1/2	14	6	24	(a)	Ele	50	
Own.....206H	4-3 3/4 x 5	206	1550	L	3	(b)	G	LP, TF	DR	Mar	Don	Nov	P	Pu	Roc	SP	SG	8 1/2	6 1/2	1470 Ad	3 1/2	14	6	32	(a)	Ele	51	
Own.....D206	4-3 3/4 x 5	206	1750	L	3	(b)	O		N	Bos	Don	Bos	P	Pu	Roc	SP	SG	8 1/2	6 1/2	1680 Ad	3 1/2	14	6	32	(a)	Ele	52	
Own.....206H	4-3 3/4 x 5	206	1550	L	3	(b)	G	LP, TF	DR	Mar	Don	Nov	P	Pu	Roc													

• TRACTORS •

1959 MODELS OF TRACTORS . . .

Line Number	TRACTOR MAKE AND MODEL	GENERAL				DRAW-BAR		OVERALL DIMENSIONS			TIRE SIZE (In.)		H.P. RATING		Nebraska Test Number	Forward Travel Speeds at Normal Governed Engine RPM with Standard Wheels		Reverse Travel Speeds at Normal Governed Engine RPM with Standard Wheels				
		Wheelbase (In.)	Minimum Turning Radius Outside (Ft.)	Ground Clearance (In.)	Shipping Weight with Rubber Tire (Lb.)	TREAD (In.)		Lateral Adjustment (In.)	Height Above Ground (In.)	Length (In.)	Width (In.)	Height - To Highest Point (In.)	Front	Rear		Ball	Drawbar	Power Take-Off	No. of Speeds	Range (MPH)	No. of Speeds	Range (MPH)
						Minimum	Maximum															
1	Oliver (contd.)																					
2	Ind. Super 88HC	82 1/2	12 1/2	12 1/2	54	68	20 1/2	Ad	135 1/2	81 1/2	70 1/2	7.00/20	13.00/24									
3	RC Super 88D	93 1/2	9 3/4	18 1/2	5100	60	92 1/2	Ad	143 1/2	80 1/2	75 1/2	6.00/16	12/38	55.63	49.58	527	Op	6	2.50-11.80	2	2.56-4.40	
4	Ind. Super 88D	82 1/2	12 1/2	11 1/2	54	68	20 1/2	Ad	135 1/2	81 1/2	70 1/2	7.00/20	13.00/24									
5	Super 44	73 1/2	8 1/2	21 1/2	2100	40	68	12 1/2	15	116 1/2	78	89 1/2	4.00/15	9/24	25.00	21.00	NT	Op	6	2.01-16.05	2	2.06-3.54
6	550HC	73 1/2	10	14 1/2	3000	48	76	20 1/2	Ad	120 1/2	67	53 1/2	5.50/16	10/28			Op	Op	6	1.92-14.88	2	2.00-4.17
7	550DSL	73 1/2	10	14 1/2	3100	48	76	20 1/2	Ad	120 1/2	67	53 1/2	5.50/16	10/28			Op	Op	6	1.92-14.88	2	2.00-4.17
8	RC 770HC	92 1/2	9 1/4	18 1/2	4428	60	92 1/2	Ad	141 1/2	80 1/2	75 1/2	5.50/16	12.40/38	51.63	45.05	648	Op	6	1.64-11.04	2	2.48-4.33	
9	RC 770DSL	92 1/2	9 1/4	18 1/2	4620	60	92 1/2	Ad	141 1/2	80 1/2	75 1/2	5.50/16	12.40/38	50.71	46.04	649	Op	6	1.64-11.04	2	2.48-4.33	
10	RC 880HC	94 1/2	12 1/2	18 1/2	5100	60	92 1/2	Ad	143 1/2	80 1/2	75 1/2	6.00/16	13.60/38	68.21	58.29	697	Op	6	1.57-13.05	2	2.39-4.46	
11	RC 880DSL	94 1/2	12 1/2	18 1/2	5200	60	92 1/2	Ad	143 1/2	80 1/2	75 1/2	6.00/16	13.60/38	61.85	54.97	650	Op	6	1.57-13.05	2	2.39-4.46	
12	RC 880HC	86 1/2	18 1/2	31 1/2	3128	60	88	20 1/2	Ad	134 1/2	80 1/2	73 1/2	5.50/15	10/38			Op	Op	6	2.35-11.92	2	2.69-4.62
13	RC 880DSL	86 1/2	18 1/2	31 1/2	3178	60	88	20 1/2	Ad	134 1/2	80 1/2	73 1/2	5.50/15	10/38			Op	Op	6	2.35-11.92	2	2.69-4.62
14	850HC	80			6900	66	66		Ad	142 1/2	84 1/2		7.50/18	14/34			Op	Op	6	2.56-13.35	2	2.81-4.98
15	950DSL	80			7000	66	66		Ad	142 1/2	84 1/2		7.50/18	14/34	70.32	64.68	680	Op	6	2.56-13.35	2	2.81-4.98
16	990GM	80			7980	66	66		Ad	142 1/2	84 1/2		7.50/18	15/34	88.46	81.20	681	Op	6	2.56-13.35	2	2.81-4.98
17	995GM	80			8185	66	66		Ad	142 1/2	84 1/2		7.50/18	15/34	89.39	74.54	682	Op	6	2.56-13.35	2	2.81-4.98
18	Sheppard	SD-3	92	8	25	4708	56	84	23	131	Ad	80 1/2	6.00/16	12/38			NT	Op	8	1.85	2	2.31-3.41
19	SD-4	91 1/2	8 1/2	26	6000	56	84	22 1/2	18 1/2	130 1/2	Ad	73 1/2	6.00/16	13/38			NT	Op	10	1.69-16.00	2	1.62-2.15
20	Tiger	PTD 5	46	8	13	518	26	40	N	13	64	26	35	4.00/8	5.00/12	5.10	4.50	St	1	8.00	1	5.00
21	883	46	9	16	590	26	40	N	15	68	28	37	4.00/8	6.00/16	5.10	6.80	St	1	8.00	1	5.00	
22	C-100	45	6	19	900	28	41	8	15	75	57	45	3.50/12	8/18	6.90	10.00		3	2.00-10.00	1	3.00	

C—Capacity of final drive, each case.
 t—Minimum.
 R—Rated using gasoline.
 E—Engine clutch only; transmission clutch, multiple disc operating wet.
 *—To top of steering wheel.
 (a)—Included in transmission.
 (b)—Front and center, 2 3/4; rear, 3.
 A—Air.

Ad—Adjustable.
 AL—Electric Auto-life Co.
 A-R—Auburn or Rockford.
 Au—Auburn Clutch Co.
 BB—Borg & Beck Div.
 Bos—American Bosch Corp.
 Br—Briggs & Stratton Corp.
 B-S—Bosch or Scintilla.
 CH—Chain.
 CL—Cam and lever.
 Cla—Clark Equipment Co.

Cont—Continental Motors Corp.
 Cum—Cummins Engine Co.
 D—Distillate.
 DA—Divided axle.
 DF—Divided axle or front axle knuckle.
 DFS—Divided axle, front axle knuckle or solid axle.
 Den—Donaldson Co.
 DP—Double plate, dry.
 DR—Dekeco-Remy Div.
 DSP—Dual single plate, dry.

D-U—Donaldson or United.
 EG—Electric or gasoline starting.
 El—Electric.
 Eng—Ensign.
 FK—Front axle knuckle.
 FM—Fairbanks Morse & Co.
 FO—Fork type.
 G—Gasoline.
 GM—General Motors Corp.
 GS—Gasoline starting engine.
 HC—Hand crank.

Progress in Passenger Car Engine Design

Average for Passenger Car Engines—Based on Number of Chassis Models Offered for Years 1936-1952
Based on Engine Models for 1953-1959

Average Hp. per Cu. In. of Displacement	Average Compression Ratio	Average B. M. E. P. at Maximum Hp. (lb. per sq. in.)	Bore, Stroke and Displacement	
			Bore (In.)	Stroke (In.)
1936.....411	1936.....6.14	1936.....82.3	1936.....3.39	4.32
1937.....417	1937.....6.25	1937.....93.1	1937.....3.25	4.31
1938.....412	1938.....6.32	1938.....91.2	1938.....3.25	4.27
1939.....416	1939.....6.32	1939.....82.7	1939.....3.24	4.23
1940.....426	1940.....6.41	1940.....93.9	1940.....3.25	4.17
1941.....431	1941.....6.53	1941.....96.7	1941.....3.26	4.15
1942.....446	1942.....6.60	1942.....98.5	1942.....3.26	4.18
1943.....440	1943.....6.77	1943.....94.6	1943.....3.27	4.11
1944.....437	1944.....6.78	1944.....94.5	1944.....3.28	4.18
1945.....437	1945.....6.78	1945.....95.3	1945.....3.29	4.12
1949.....453	1949.....6.93	1949.....97.3	1949.....3.35	4.18
1950.....455	1950.....7.00	1950.....98.6	1950.....3.37	4.11
1951.....474	1951.....7.09	1951.....99.5	1951.....3.40	4.00
1952.....488	1952.....7.14	1952.....101.4	1952.....3.39	3.96
1953.....518	1953.....7.31	1953.....106.0	1953.....3.40	3.97
1954.....564	1954.....7.31	1954.....113.1	1954.....3.46	3.83
1955.....639	1955.....7.87	1955.....118.1	1955.....3.62	3.57
1956.....691	1956.....8.47	1956.....127.2	1956.....3.72	3.63
1957.....765	1957.....8.75	1957.....133.4	1957.....3.74	3.60
1958.....797	1958.....9.32	1958.....138.8	1958.....3.86	3.61
1959.....746	1959.....9.30	1959.....136.3	1959.....3.90	3.58

... WHEEL TYPE—concluded

Make and Model	ENGINE				FUEL		Ignition Make	Carburetor or Injector Pump Make	Air Cleaner Make	Governor Make	Oiling System Type	Cooling System Type	Clutch—Make and Type	Final Drive—Type	BELT PULLEY			Steering Type	CAPACITIES					Starting Method	Line Number
	Number of Cylinders—Bore and Stroke (In.)	Platen Disp. (Cu. In.)	R.P.M. at Governor Speed	Valve Arrangement	Number of Main Bearings	Diameter of Main Bearings									Diameter (In.)	Face (In.)	Normal R.P.M.		Cooling System (Gal.)	Fuel Tank (Gal.)	Crankcase (Qts.)	Transmission (Qts.)	Final Drive Case (Qts.)		
Owens 88HC	6-3 1/2 x 4	265	1600	I	4	2 5/8	DR	M-Z	Don	Own	PS	Pu	BB	SP	SG	11 1/2	7 1/4	992 FK	4 1/2	20 1/2	6	18	(a)	Ele	1
Owens 88D	6-3 1/2 x 4	265	1600	I	4	2 5/8	N	Boe	Don	Boe	PS	Pu	BB	SP	SG	11 1/2	7 1/4	992 SA	4 1/2	18 1/4	6	18	(a)	Ele	2
Owens 88D	6-3 1/2 x 4	265	1600	I	4	2 5/8	N	Boe	Don	Boe	PS	Pu	BB	SP	SG	11 1/2	7 1/4	992 FK	4 1/2	18 1/4	6	18	(a)	Ele	4
Cont. F140	4-3 1/2 x 4 1/2	140	1800	L	3	2 1/2	DR	Mar	Don	Pie	P	Pu	Au	SP	SG	9 1/2	6 1/2	1160 CL	2 1/2	10	4	8	1 1/2	Ele	5
Owens 550HC	4-3 1/2 x 3 1/2	155	2000	I	3	2 1/4	DR	Mar	Don	Pie	PS	Pu	Au	SP	SG	9	6 1/2	1319 FK	3 1/2	13	4	20	(a)	Ele	6
Owens 550DSL	4-3 1/2 x 3 1/2	155	2000	I	3	2 1/4	N	Boe	Don	Boe	PS	Pu	Au	SP	SG	9	6 1/2	1319 FK	3 1/2	13	4	20	(a)	Ele	7
Owens 770HC	6-3 1/2 x 3 1/2	216	1750	I	4	2 1/4	DR	Mar	Don	Pie	PS	Pu	BB	SP	SG	11 1/2	6 1/2	1022 SA	4 1/2	20	5	18	(a)	Ele	8
Owens 770DSL	6-3 1/2 x 3 1/2	216	1750	I	4	2 1/4	N	Boe	Don	Boe	PS	Pu	BB	SP	SG	11 1/2	6 1/2	1022 SA	4 1/2	20	5	18	(a)	Ele	9
Owens 770HC	6-3 1/2 x 4	285	1750	I	4	2 5/8	DR	Mar	Don	Pie	PS	Pu	BB	SP	SG	11 1/2	6 1/2	1022 SA	4 1/2	20	6	18	(a)	Ele	10
Owens 770DSL	6-3 1/2 x 4	285	1750	I	4	2 5/8	N	Boe	Don	Boe	PS	Pu	BB	SP	SG	11 1/2	6 1/2	1022 SA	4 1/2	20	6	18	(a)	Ele	11
Owens 660HC	4-3 1/2 x 3 1/2	155	2000	I	3	2 1/4	DR	Mar	Don	Pie	PS	Pu	BB	SP	SG	9 1/2	7 1/4	1232 SA	3 1/2	13	4	18	(a)	Ele	12
Owens 660D	4-3 1/2 x 3 1/2	155	2000	I	3	2 1/4	N	Boe	Don	Boe	PS	Pu	BB	SP	SG	9 1/2	7 1/4	1232 SA	3 1/2	13	4	18	(a)	Ele	13
Owens 950HC	6-4 x 4	302	1800	I	4	2 5/8	DR	Mar	Don	Own	PS	Pu	BB	SP	SG	12 1/2	9	1021 FK	5 1/2	30	6	32	(a)	Ele	14
Owens 950DSL	6-4 x 4	302	1800	I	4	2 5/8	N	Boe	Don	Boe	PS	Pu	BB	SP	SG	12 1/2	9	1021 FK	5 1/2	30	6	32	(a)	Ele	15
GM 3-71	3-4 1/2 x 5	213	2000	I	4	3 1/2	N	GM	Don	GM	PS	Pu	BB	SP	SG	12 1/2	9	1134 FK	5 1/2	30	11	32	(a)	Ele	16
GM 3-71	3-4 1/2 x 5	213	2000	I	4	3 1/2	N	GM	Don	GM	PS	Pu	BB	SP	SG	12 1/2	9	1134 FK	5 1/2	30	11	32	(a)	Ele	17
Owens 8E	3-4 1/2 x 5	212	1650	I	4	2 1/2	Own	Own	Don	Own	P	Pu	Roc	SP	SG	8 1/2	7 1/4	1350	7 1/2	15	13	25	(a)	Ele	18
Owens 10B	4-4 1/2 x 5	319	1650	I	5	3 1/4	Own	Own	Don	Own	P	Pu	Roc	SP	SG	10	7 1/4	1190	7 1/2	22	10	32	(a)	Ele	19
Br. 14	1-2 1/2 x 2 1/2	14	3200	L	...	...	Br	Br	Uni	Br	PS	A	TD	MD	SC	...	...	SA	N	1	1 1/2	1	1	HC	20
Br. 23	1-3 x 3	19	3300	L	...	...	Br	Br	Uni	Br	PS	A	TD	MD	SC	...	...	SA	N	2	3	3	3	HC	21
Br. 23	1-3 x 3	19	3300	L	...	...	Br	Br	Uni	Br	PS	A	TD	MD	SC	...	...	SA	N	2	3	3	3	HC	21

H-E—Hand crank or electric.
Her—Hercules Motors Corp.
I—In head.
IG—Internal gear.
Int—International Harvester Co.
I-R—International or Rockford.
K—Kerosene.
L—"L" head (valves at side).
Lo—Long Mfg. Co.
LP—Liquefied petroleum gas.
Luc—Lucas C.A.V.

Mar—Marvel-Schebler Carburetor Div.
MD—Multiple disc, operating dry.
M-Z—Marvel-Schebler or Zenith.
N—None.
Nov—Novi Equipment Co.
N-P—Novi or Pierce.
NT—Not tested.
O—Diesel fuel.
Op—Optional.
O-R—Own or Rockford.
P—Pressure.

Per—F. Perkins, Ltd.
Pie—Pierce Governor Co.
PL—Planetary.
PS—Pressure and splash.
P—Pump.
Roc—Rockford Clutch Div.
Rm—Romo-Master.
SA—Solid axle.
SB—Spiral bevel gear.
SC—Spur gear and chain.
SG—Spur gear.
SH—Spur gear and helical gear.

SO—Single plate, operating in oil.
SP—Single plate, dry.
St—Standard.
Std—Standard Motors, Ltd.
TC—Torque converter.
TD—Twin Disc Clutch Co.
TF—Tractor fuel.
TS—Thermo-syphon.
Uni—United Specialties Co.
WS—Worm and sector.
Zen—Zenith Carburetor Div.

Progress in Passenger Car Engine Design

Average for Passenger Car Engines—Based on Number of Chassis Models Offered for Years 1936-1952
Based on Engine Models for 1953-1959

Average Piston Speeds (Ft. per Min.)		Average Displacement per Cylinder (Cu. In.)		Average Number of Cylinders		Average R.P.M. at Max. B.H.P.		Average Brake Horsepower	
1936	2496	1936	35.6	1936	7.50	1936	3487	1936	110.1
1937	2554	1937	35.8	1937	7.74	1937	3556	1937	116.9
1938	2545	1938	35.7	1938	7.60	1938	3576	1938	111.7
1939	2486	1939	35.1	1939	7.28	1939	3543	1939	105.9
1940	2490	1940	35.0	1940	7.25	1940	3580	1940	107.9
1941	2482	1941	35.2	1941	7.15	1941	3503	1941	110.9
1942	2534	1942	34.9	1942	7.20	1942	3638	1942	112.5
1943	2522	1943	35.4	1943	6.97	1943	3682	1943	108.4
1944	2550	1944	35.8	1944	7.00	1944	3660	1944	109.4
1945	2482	1945	35.6	1945	6.95	1945	3629	1945	107.9
1946	2522	1946	36.8	1946	6.80	1946	3690	1946	113.3
1947	2505	1947	37.2	1947	6.88	1947	3657	1947	116.6
1948	2505	1948	36.8	1948	6.80	1948	3758	1948	118.0
1949	2523	1949	36.8	1949	6.87	1949	3623	1949	122.6
1950	2560	1950	36.1	1950	6.68	1950	3669	1950	125.0
1951	2580	1951	36.8	1951	6.78	1951	3953	1951	140.8
1952	2585	1952	36.7	1952	7.40	1952	4294	1952	173.5
1953	2634	1953	39.6	1953	7.31	1953	4353	1953	207.9
1954	2724	1954	39.9	1954	7.62	1954	4540	1954	232.6
1955	2735	1955	42.3	1955	7.70	1955	4545	1955	250.6
1956	2651	1956	43.2	1956	7.62	1956	4431	1956	251.1

LIGHT TRUCKS

MAKE AND MODEL	WHEEL-BASE		TIRE SIZES		ENGINE DETAILS					TRANSMISSION		REAR AXLE							
	Minimum Standard (in.)	Maximum Standard (in.)	Gross Vehicle Weight for Normal Service (Lb.)	Chassis Weight (Lb.)	D-dual rear S-single rear		Make and Model	No. of Cylinders, Bore and Stroke (in.)	Displacement (Cu. In.)	Comp. Ratio (to 1)	Torque (Lb. Ft.)	Max. Brake H.P. at Given R.P.M.	Make and Model	Forward Speeds	Make and Model	Gear and Type	Drive and Torque	Gear Ratio Range in High	
					Standard Front and Rear	Maximum Authorized Tire Size (Dual unless noted)													
Chevrolet	G-80	119	4900	3790	8.00/145	8.50/145	O-Hi. Thrift.	6-3 1/2 x 3 1/2	238	8.3/217	135-4000	Own ¹	3	Own	HS		3.55 ¹		
	H-80	119	5000	3790	8.00/145	8.50/145	O-Turbo Fire ¹	6-3 1/2 x 3 1/2	283	8.5/275	165-4800	Own ¹	3	Own	HS		3.55 ¹		
	3A-80	114	5000	3085	6.70/155	7.17/55	O-Th. Mas. ¹	6-3 1/2 x 3 1/2	236	8.3/217	135-4000	Own ¹	3	Own	HS	H	4.1-4.89		
	3B-80	123 1/2	5000	3130	6.70/155	7.17/55	O-Th. Mas. ¹	6-3 1/2 x 3 1/2	236	8.3/217	135-4000	Own ¹	3	Own	HS	H	4.1-4.89		
	3E-80	123 1/2	6900	3485	7.17/55	7.17/55	O-Th. Mas. ¹	6-3 1/2 x 3 1/2	236	8.3/217	135-4000	Own ¹	3	Own	HF	H	4.57		
	3G-80	135	9500	3680	8.17/55	8.19/55	O-Th. Mas. ¹	6-3 1/2 x 3 1/2	236	8.3/217	135-4000	Own ¹	4	Own	HF	H	5.14		
Cleveland	LA 107	107	8200	5200	8.17/55	8.17/55	Electric Motor												
Dodge	111	100 1/2	7500	2925	7.00/165 ¹		Con F4162	4-3 1/2 x 4 1/2	162	6.1/123	47-2800	WG T9	Int L150	Hy			5.57-6.16		
	114	100 1/2	7500	2930	7.00/165 ¹		Con F4162S	4-3 1/2 x 4 1/2	162	6.2/123	55-2900	WG T9	Int L150	Hy			5.57-6.16		
	120	100 1/2	6000	2985	7.00/165		Con F4162	4-3 1/2 x 4 1/2	162	6.1/123	47-2800	WG T87	Int L150	Hy			5.57-6.16		
	124	100 1/2	6000	2980	7.00/165		Con F4162S	4-3 1/2 x 4 1/2	162	6.2/123	55-2900	WG T87	Int L150	Hy			5.57-6.16		
	130	100 1/2	7300	2940	7.00/165 ¹		Con F4162	4-3 1/2 x 4 1/2	162	6.1/123	47-2800	WG T9	Int L150	Hy			5.57-6.16		
	134	100 1/2	7300	2950	7.00/165 ¹		Con F4162S	4-3 1/2 x 4 1/2	162	6.2/123	55-2900	WG T9	Int L150	Hy			5.57-6.16		
	150	100 1/2	7000	2995	7.00/165 ¹		Her QXD3	6-3 1/2 x 4 1/2	230	6.6/173	75-2800	WG T9	Int L150	Hy			5.57-6.16		
	164	100 1/2	7000	2988	7.00/165 ¹		Her QXD3	6-3 1/2 x 4 1/2	230	6.6/173	75-2800	WG T9	Int L150	Hy			5.57-6.16		
	224	127 1/2	8000	3200	7.00/165 ¹		Her QXD3	6-3 1/2 x 4 1/2	230	6.6/173	75-2800	WG T87	Tim	SB			5.14-6.6		
	244	127 1/2	7800	3177	7.00/165 ¹		Con F4162S	4-3 1/2 x 4 1/2	162	6.2/123	55-2900	WG T87	Tim	SB			5.14-6.6		
	344	115	7500	3175	7.00/165 ¹		Her QXD3	6-3 1/2 x 4 1/2	230	6.6/173	75-2800	WG T87	Int L150	Hy			5.57-6.16		
	364	115	6500	3112	7.00/165		Con F4162S	4-3 1/2 x 4 1/2	162	6.2/123	55-2900	WG T87	Int L150	Hy			5.57-6.16		
	364HD	115	9500	3143	7.50/165 ¹		Con F4162S	4-3 1/2 x 4 1/2	162	6.2/123	55-2900	WG T87	Int L150	Hy			5.57-6.16		
	374	115	9500	3232	7.00/165 ¹		Her QXD3	6-3 1/2 x 4 1/2	230	6.6/173	75-2800	WG T87	Int L150	Hy			5.57-6.16		
	42	130	7000	3370	7.00/165		Own Super 6	6-3 1/2 x 4 1/2	253	7.9/220	102-3400	WG T86	Int L150	Hy			5.57-6.16		
	52	117 1/2	7000	3281	7.50/165		Own Super 6	6-3 1/2 x 4 1/2	253	7.9/220	102-3400	WG T86	Int L150	Hy			5.57-6.16		
Dodge	M6-D100	108	116	8100	6.70/155	8.50/165	Own	6-3 1/2 x 4 1/2	230	7.9/202	120-3600	Own PC	3	Own D100	Hy	H	4.1-4.89		
	M6-D100	108	116	8100	6.70/155	8.50/165	Own	6-3 1/2 x 4 1/2	230	7.9/202	120-3600	Own PC	3	Own D100	Hy	H	4.1-4.89		
	M6-D200	116	116	7500	6.50/165	8.19/55	Own	6-3 1/2 x 4 1/2	230	7.9/202	120-3600	WG T85E	3	Spi 60	Hy	H	4.1-4.89		
	M6-D200	116	116	7500	6.50/16	8.19/55	Own	6-3 1/2 x 4 1/2	230	7.9/202	120-3600	WG T85E	3	Spi 60	Hy	H	4.1-4.89		
	M6-D300	126	126	9000	7.17/55	8.19/55	Own	6-3 1/2 x 4 1/2	230	7.9/202	120-3600	WG T85E	3	Spi 60	Hy	H	4.1-4.89		
	M6-D300	126	126	9000	7.17/55	8.19/55	Own	6-3 1/2 x 4 1/2	230	7.9/202	120-3600	WG T85E	3	Spi 60	Hy	H	4.1-4.89		
	(c.f.)	M6-P300	126	9000	7.17/55	8.19/55	Own	6-3 1/2 x 4 1/2	230	7.9/202	120-3600	WG T87E	3	Own P300	Hy	H	4.1-4.89		
	(c.f.)	M6-P300	126	9000	7.17/55	8.19/55	Own	6-3 1/2 x 4 1/2	230	7.9/202	120-3600	WG T87E	3	Own P300	Hy	H	4.1-4.89		
Ford	Flanchery	118	118	4600	3446	7.50/145	8.00/145	Ford EBP	6-3 1/2 x 3 1/2	223	8.6/212	145-4200	Ford ¹	3	Ford 3000	HS	H	3.89 ¹	
		118	118	4600	3587	7.50/145	8.00/145	Ford EDB	6-3 1/2 x 3 1/2	223	8.6/212	145-4200	Ford ¹	3	Ford 3000	HS	H	3.89 ¹	
		118	118	4600	3615	7.50/145	8.00/145	Ford EDT	6-3 1/2 x 3 1/2	223	8.6/212	145-4200	Ford ¹	3	Ford 3000	HS	H	3.89 ¹	
		118	118	4600	3476	7.50/145	8.00/145	Ford EBP	6-3 1/2 x 3 1/2	223	8.6/212	145-4200	Ford ¹	3	Ford 3000	HS	H	3.89 ¹	
		118	118	4600	3587	7.50/145	8.00/145	Ford EDB	6-3 1/2 x 3 1/2	223	8.6/212	145-4200	Ford ¹	3	Ford 3000	HS	H	3.89 ¹	
		118	118	4600	3615	7.50/145	8.00/145	Ford EDT	6-3 1/2 x 3 1/2	223	8.6/212	145-4200	Ford ¹	3	Ford 3000	HS	H	3.89 ¹	
		118	118	4600	3476	7.50/145	8.00/145	Ford EBP	6-3 1/2 x 3 1/2	223	8.6/212	145-4200	Ford ¹	3	Ford 3000	HS	H	3.89 ¹	
		118	118	4600	3587	7.50/145	8.00/145	Ford EDB	6-3 1/2 x 3 1/2	223	8.6/212	145-4200	Ford ¹	3	Ford 3000	HS	H	3.89 ¹	
		118	118	4600	3615	7.50/145	8.00/145	Ford EDT	6-3 1/2 x 3 1/2	223	8.6/212	145-4200	Ford ¹	3	Ford 3000	HS	H	3.89 ¹	
		118	118	4600	3476	7.50/145	8.00/145	Ford EBP	6-3 1/2 x 3 1/2	223	8.6/212	145-4200	Ford ¹	3	Ford 3000	HS	H	3.89 ¹	
		118	118	4600	3587	7.50/145	8.00/145	Ford EDB	6-3 1/2 x 3 1/2	223	8.6/212	145-4200	Ford ¹	3	Ford 3000	HS	H	3.89 ¹	
		118	118	4600	3615	7.50/145	8.00/145	Ford EDT	6-3 1/2 x 3 1/2	223	8.6/212	145-4200	Ford ¹	3	Ford 3000	HS	H	3.89 ¹	
		118	118	4600	3476	7.50/145	8.00/145	Ford EBP	6-3 1/2 x 3 1/2	223	8.6/212	145-4200	Ford ¹	3	Ford 3000	HS	H	3.89 ¹	
		118	118	4600	3587	7.50/145	8.00/145	Ford EDB	6-3 1/2 x 3 1/2	223	8.6/212	145-4200	Ford ¹	3	Ford 3000	HS	H	3.89 ¹	
		118	118	4600	3615	7.50/145	8.00/145	Ford EDT	6-3 1/2 x 3 1/2	223	8.6/212	145-4200	Ford ¹	3	Ford 3000	HS	H	3.89 ¹	
		118	118	4600	3476	7.50/145	8.00/145	Ford EBP	6-3 1/2 x 3 1/2	223	8.6/212	145-4200	Ford ¹	3	Ford 3000	HS	H	3.89 ¹	
		118	118	4600	3587	7.50/145	8.00/145	Ford EDB	6-3 1/2 x 3 1/2	223	8.6/212	145-4200	Ford ¹	3	Ford 3000	HS	H	3.89 ¹	
		118	118	4600	3615	7.50/145	8.00/145	Ford EDT	6-3 1/2 x 3 1/2	223	8.6/212	145-4200	Ford ¹	3	Ford 3000	HS	H	3.89 ¹	
		118	118	4600	3476	7.50/145	8.00/145	Ford EBP	6-3 1/2 x 3 1/2	223	8.6/212	145-4200	Ford ¹	3	Ford 3000	HS	H	3.89 ¹	
		118	118	4600	3587	7.50/145	8.00/145	Ford EDB	6-3 1/2 x 3 1/2	223	8.6/212	145-4200	Ford ¹	3	Ford 3000	HS	H	3.89 ¹	
		118	118	4600	3615	7.50/145	8.00/145	Ford EDT	6-3 1/2 x 3 1/2	223	8.6/212	145-4200	Ford ¹	3	Ford 3000	HS	H	3.89 ¹	
		118	118	4600	3476	7.50/145	8.00/145	Ford EBP	6-3 1/2 x 3 1/2	223	8.6/212	145-4200	Ford ¹	3	Ford 3000	HS	H	3.89 ¹	
		118	118	4600	3587	7.50/145	8.00/145	Ford EDB	6-3 1/2 x 3 1/2	223	8.6/212	145-4200	Ford ¹	3	Ford 3000	HS	H	3.89 ¹	
		118	118	4600	3615	7.50/145	8.00/145	Ford EDT	6-3 1/2 x 3 1/2	223	8.6/212	145-4200	Ford ¹	3	Ford 3000	HS	H	3.89 ¹	
		118	118	4600	3476	7.50/145	8.00/145	Ford EBP	6-3 1/2 x 3 1/2	223	8.6/212	145-4200	Ford ¹	3	Ford 3000	HS	H	3.89 ¹	
		118	118	4600	3587	7.50/145	8.00/145	Ford EDB	6-3 1/2 x 3 1/2	223	8.6/212	145-4200	Ford ¹	3	Ford 3000	HS	H	3.89 ¹	
		118	118	4600	3615	7.50/145	8.00/145	Ford EDT											

TUNE-UP DATA ON 1954-1959 CARS

MAKE AND MODEL	No. of Cylinders, Bore and Stroke (In.)	VALVES				IGNITION				Cooling System Capacity (Qt.)	Compression Ratio (Standard Head)	CRANK-PIN		FRONT AXLE				
		Inlet Tapset Clearance for Valve Timing (In.)	Intake Valve Opens Deg. Before or After T.C.	Operating Tapset Clearance (In.)		Spark Plug Make and Model	Gap (In.)	Spark Occurs—No. of Turns Before or After T.C.	Breaker Gap (In.)			Crankcase Capacity (Qt.)	Diam (In.)	Length (In.)	Caster (Deg.)	Camber (Deg.)	Toe-In (In.)	Kingpin Inclination (Deg.)
				Intake	Exhaust													
BUICK																		
40.....1954	8-3 1/2 x 3 1/2	.004	25B	AA	AA	AC-44-5	.033	5B	.015	6	16 1/2	7.20	2 1/2	1 1/2 N to 1 1/2 P	1 1/2 N to 1 1/2 P	0 to 1/8	0	
50, 60.....1954	8-4 1/2 x 3 1/2	.004	25B	AA	AA	AC-44-5	.033	5B	.015	6	16 1/2	8.00	2 1/2	1 1/2 N to 1 1/2 P	1 1/2 N to 1 1/2 P	0 to 1/8	0	
70.....1954	8-4 1/2 x 3 1/2	.004	25B	AA	AA	AC-44-5	.033	5B	.015	6	16 1/2	8.50	2 1/2	1 1/2 N to 1 1/2 P	1 1/2 N to 1 1/2 P	0 to 1/8	0	
40.....1955	8-3 1/2 x 3 1/2	.004	25B	AA	AA	AC-44-5	.033	5B	.015	6	16 1/2	9.40	2 1/2	1 1/2 N to 1 1/2 P	1 1/2 N to 1 1/2 P	0 to 1/8	0	
50, 60.....1955	8-4 1/2 x 3 1/2	.004	25B	AA	AA	AC-44-5	.033	5B	.015	6	16 1/2	9.00	2 1/2	1 1/2 N to 1 1/2 P	1 1/2 N to 1 1/2 P	0 to 1/8	0	
70.....1955	8-4 1/2 x 3 1/2	.004	28B	AA	AA	AC-44-5	.033	5B	.015	6	16 1/2	9.00	2 1/2	1 1/2 N to 1 1/2 P	1 1/2 N to 1 1/2 P	0 to 1/8	0	
40.....1956	8-4 1/2 x 3 1/2	.004	25B	AA	AA	AC-44	.033	5B	.015	6	17 1/2	8.90	2 1/2	1 1/2 N to 1 1/2 P	1 1/2 N to 1 1/2 P	1/8 to 1/4	7	
50, 60, 70.....1956	8-4 1/2 x 3 1/2	.004	30B	AA	AA	AC-44	.033	5B	.015	6	17 1/2	9.50	2 1/2	1 1/2 N to 1 1/2 P	1 1/2 N to 1 1/2 P	1/8 to 1/4	7	
40.....1957	8-4 1/2 x 3 1/2	.004	25B	AA	AA	AC-44	.033	5B	.015	5	16 1/2	9.50	2 1/2	1 1/2 N	1 1/2 P	1/8 to 1/4	7	
50, 60, 70.....1957	8-4 1/2 x 3 1/2	.004	34B	AA	AA	AC-44	.033	5B	.015	5	16 1/2	10.00	2 1/2	1 1/2 N	1 1/2 P	1/8 to 1/4	7	
4400.....1959	8-4 1/2 x 3 1/2	.004	25B	AA	AA	AC-44S	.033	5B	.015	4	16 1/2	8.50	2 1/2	1 1/2 N	1 1/2 P	1/8 to 1/4	7	
4600, 4700, 4800.....1959	8-4 1/2 x 3 1/2	.004	33B	AA	AA	AC-44S	.033	12B	.015	4	16 1/2	10.50	2 1/2	1 1/2 N	1 1/2 P	1/8 to 1/4	7	
CADILLAC																		
60, 62, 75.....1954	8-3 1/2 x 3 1/2	.004	22B	AA	AA	AC-46-5	.035	2 1/2	.019	5	19 1/2	8.25	2 1/2	0 to 1 N	1 1/2 N to 1 1/2 P	1/8 to 1/4	8° 51'	
60, 62, 75.....1955	8-3 1/2 x 3 1/2	.004	19B	AA	AA	AC-44-5	.035	2 1/2	.019	5	18	9.00	2 1/2	0 to 1 N	1 1/2 N to 1 1/2 P	1/8 to 1/4	8° 51'	
60, 62, 75.....1956	8-4 x 3 1/2	.004	39B	AA	AA	AC-44	.035	5B	.019	5	17 1/2	8.75	2 1/2	1 1/2 N to 1 1/2 P	1 1/2 N to 1 1/2 P	1/8 to 1/4	8° 51'	
60, 62, 75.....1957	8-4 x 3 1/2	.004	36B	AA	AA	AC-44	.035	5B	.019	5	19	10.00	2 1/2	1 1/2 N to 1 1/2 P	1 1/2 N to 1 1/2 P	1/8 to 1/4	8° 51'	
60, 62, 75.....1958	8-4 x 3 1/2	.004	39B	AA	AA	AC-44	.035	5B	.019	5	19	10.25	2 1/2	1 1/2 N to 1 1/2 P	1 1/2 N to 1 1/2 P	1/8 to 1/4	8° 51'	
60, 62, 75.....1959	8-4 x 3 1/2	.004	39B	AA	AA	AC-44	.035	5B	.019	5	18 1/2	10.50	2 1/2	1 1/2 N to 1 1/2 P	1 1/2 N to 1 1/2 P	1/8 to 1/4	8° 51'	
CHEVROLET																		
1500, 2100, 2400.....1954	6-3 1/2 x 3 1/2	.004	1A4	.010H	.020H	AC-44-5	.036	2A	.015	5	16	7.50	2 1/2	0 to 1 P	0 to 1 P	0 to 1/8	4	
2900.....1954-55	6-3 1/2 x 3 1/2	.004	19 1/2	.010H	.020H	AC-44-5	.036	2A	.015	5	17 1/2	8.00	2 1/2	0 to 1 P	0 to 1 P	0 to 1/8	4	
1500, 2100, 2400.....1955	6-3 1/2 x 3 1/2	.004	1A4	.006H	.013H	AC-44-5	.036	7C	.019	5	16	7.50	2 1/2	0 to 1 P	0 to 1 P	0 to 1/8	4	
1500, 2100, 2400, 2900.....1955	6-3 1/2 x 3 1/2	.004	12B4	.006H	.013H	AC-44-5	.036	4B	.019	4	16	8.00	2 1/2	0 to 1 P	0 to 1 P	0 to 1/8	4	
1500, 2100, 2400.....1956-57	6-3 1/2 x 3 1/2	.004	10 1/2	AA	AA	AC-44	.036	7C	.019	5	16	8.00	2 1/2	0 to 1 P	0 to 1 P	0 to 1/8	4	
1500, 2100, 2400.....1956	6-3 1/2 x 3 1/2	.004	18B	AA	AA	AC-44	.036	4B	.019	4	16	8.00	2 1/2	0 to 1 P	0 to 1 P	0 to 1/8	4	
2900.....1956	6-3 1/2 x 3 1/2	.004	21 1/2	.008H	.016H	AC-C-43	.036	4B	.019	5	16	9.25	2 1/2	0 to 1 P	0 to 1 P	0 to 1/8	4	
1500, 2100, 2400.....1957	6-3 1/2 x 3 1/2	.004	18B	AA	AA	AC-44	.036	4B	.019	4	16	8.00	2 1/2	0 to 1 P	0 to 1 P	0 to 1/8	4	
1500, 2100, 2400.....1957	6-3 1/2 x 3 1/2	.004	12 1/2	AA	AA	AC-44	.036	4B	.019	4	16	8.50	2 1/2	0 to 1 P	0 to 1 P	0 to 1/8	4	
2900.....1957	6-3 1/2 x 3 1/2	.004	12 1/2	AA	AA	AC-44	.036	4B	.019	5	16	8.50	2 1/2	0 to 1 P	0 to 1 P	0 to 1/8	4	
1100, 1500, 1700.....1958	6-3 1/2 x 3 1/2	.004	10 1/2	AA	AA	AC-44	.035	7C	.019	5	16	8.25	2 1/2	0 to 1 P	0 to 1 P	0 to 1/8	4	
1200, 1600, 1800.....1958	6-4 1/2 x 3 1/2	.004	14B	AA	AA	AC-44	.035	4B	.019	4	16	8.50	2 1/2	0 to 1 P	0 to 1 P	0 to 1/8	4	
1200, 1600, 1800.....1958	6-4 1/2 x 3 1/2	.004	18 1/2	AA	AA	AC-44	.035	4B	.019	4	22	9.50	2 1/2	0 to 1 P	0 to 1 P	0 to 1/8	4	
867.....1958	6-3 1/2 x 3 1/2	.004	12 1/2	AA	AA	AC-46	.035	4B	.019	5	16	9.50	2 1/2	0 to 1 P	0 to 1 P	0 to 1/8	4	
1100, 1500, 1700.....1959	6-3 1/2 x 3 1/2	.004	16B	AA	AA	AC-44	.035	8B	.019	5	17	8.25	2 1/2	0 to 1 P	0 to 1 P	0 to 1/8	7° 11'	
1200, 1600, 1800.....1959	6-3 1/2 x 3 1/2	.004	12 1/2	AA	AA	AC-44	.035	4B	.019	4	17 1/2	8.00	2 1/2	0 to 1 P	0 to 1 P	0 to 1/8	7° 11'	
1200, 1600, 1800.....1959	6-4 1/2 x 3 1/2	.004	18 1/2	AA	AA	AC-44	.035	4B	.019	4	21	9.50	2 1/2	0 to 1 P	0 to 1 P	0 to 1/8	7° 11'	
867.....1959	6-3 1/2 x 3 1/2	.004	12 1/2	AA	AA	AC-46	.035	4B	.019	5	16 1/2	9.50	2 1/2	0 to 1 P	0 to 1 P	0 to 1/8	4	
CHRYSLER																		
C62.....1954	6-3 1/2 x 3 1/2	.014	12B	.008H	.010H	AL-4S-140	.035	7C	.019	5	15	7.00	2 1/2	1 1/2 N to 3 N	1 1/2 N to 1 1/2 P	0 to 1/8	5 1/2	
C63.....1954	6-3 1/2 x 3 1/2	.014	15B	AA	AA	AL-4S-150	.035	4B	.017	5	25	7.50	2 1/2	1 1/2 N to 3 N	1 1/2 N to 1 1/2 P	0 to 1/8	5 1/2	
C67.....1955	6-3 1/2 x 3 1/2	.014	15B	AA	AA	AL-4S-165	.035	6B	.017	5	24	8.00	2 1/2	0 to 2 N	1 1/2 N to 1 1/2 P	0 to 1/8	5 1/2	
C68.....1955	6-3 1/2 x 3 1/2	.014	15B	AA	AA	AL-4S-175	.035	6B	.017	5	25	8.50	2 1/2	0 to 2 N	1 1/2 N to 1 1/2 P	0 to 1/8	5 1/2	
C300.....1955	6-3 1/2 x 3 1/2	.012	35B	.015	.024	AL-4S-200	.035	10B	.017	5	25	8.50	2 1/2	0 to 2 N	1 1/2 N to 1 1/2 P	0 to 1/8	5 1/2	
C71.....1956	6-3 1/2 x 3 1/2	.014	5B	AA	AA	AL-AR-52	.035	2B	.017	5	24	8.50	2 1/2	0 to 2 N	1 1/2 N to 1 1/2 P	0 to 1/8	5 1/2	
C72.....1956	6-3 1/2 x 3 1/2	.014	15B	AA	AA	AL-AGR-42	.035	4B	.017	5	25	9.00	2 1/2	0 to 2 N	1 1/2 N to 1 1/2 P	0 to 1/8	5 1/2	
C72-300.....1956	6-3 1/2 x 3 1/2	.014	35B	.015H	.024H	AL (I)	.035	6B	.017	5	25	9.00	2 1/2	0 to 2 N	1 1/2 N to 1 1/2 P	0 to 1/8	5 1/2	
C75-1.....1957	6-3 1/2 x 3 1/2	.014	13B	AA	AA	AL-AR-42	.035	6B	.017	5	21	9.25	2 1/2	0 to 1 1/2 N	0 to 1 1/2 P	0 to 1/8	6 1/2	
C75-2.....1957	6-3 1/2 x 3 1/2	.014	13B	AA	AA	AL-AR-42	.035	6B	.017	5	21	9.25	2 1/2	0 to 1 1/2 N	0 to 1 1/2 P	0 to 1/8	6 1/2	
C76.....1957	6-4 x 3 1/2	.014	15B	AA	AA	AL-AR-42	.035	6B	.017	5	24	9.25	2 1/2	0 to 1 1/2 N	0 to 1 1/2 P	0 to 1/8	6 1/2	
C76-300.....1957	6-4 x 3 1/2	.014	35B	.015H	.024H	AL-AR-42	.035	6B	.017	5	24	9.25	2 1/2	0 to 1 1/2 N	0 to 1 1/2 P	0 to 1/8	6 1/2	
LC1.....1958	6-3 1/2 x 3 1/2	.014	13B	AA	AA	AL-AR-42	.035	6B	.017	4	21	10.00	2 1/2	0 to 1 1/2 N	0 to 1 1/2 P	0 to 1/8	6 1/2	
LC2.....1958	6-3 1/2 x 3 1/2	.014	13B	AA	AA	AL-AR-42	.035	6B	.017	4	21	10.00	2 1/2	0 to 1 1/2 N	0 to 1 1/2 P	0 to 1/8	6 1/2	
LC3-H.....1958	6-4 x 3 1/2	.014	15B	AA	AA	AL-AGR-42	.035	6B	.017	5	24	10.00	2 1/2	0 to 1 1/2 N	0 to 1 1/2 P	0 to 1/8	6 1/2	
LC3-S.....1958	6-4 x 3 1/2	.014	32B	.015H	.024H	AL-AR-32	.035	6B	.017	5	24	10.00	2 1/2	0 to 1 1/2 N	0 to 1 1/2 P	0 to 1/8	6 1/2	
MC1.....1959	6-4 1/2 x 3 1/2	.014	15B	AA	AA	AL-A-42	.035	10B	.017	5	17	10.10	2 1/2	0 to 1 1/2 N	0 to 1 1/2 P	0 to 1/8	6 1/2	
MC2.....1959	6-4 1/2 x 3 1/2	.014	15B	AA	AA	AL-A-42	.035	10B	.017	5	16	10.10	2 1/2	0 to 1 1/2 N	0 to 1 1/2 P	0 to 1/8	6 1/2	
MC3.....1959	6-4 1/2 x 3 1/2	.014	15B	AA	AA	AL-A-42	.035	10B	.017	5	16	10.10	2 1/2	0 to 1 1/2 N	0 to 1 1/2 P	0 to 1/8	6 1/2	
MC3-300E.....1959	6-4 1/2 x 3 1/2	.014	20B	AA	AA	AL-A-32	.035	10B	.017	5	16	10.10	2 1/2	0 to 1 1/2 N	0 to 1 1/2 P	0 to 1/8	6 1/2	
CONTINENTAL																		
60A.....1956	8-4 x 3 1/2	.004	18B	AA	AA	Ch-880	.034	5B	.015	5	23	9.00	2 1/2	1 1/2 P to 1 1/2 P	0 to 1 1/2 P	1/8 to 1/4	7° 10'	
60A.....1957	8-4 x 3 1/2	.004	18B	AA	AA	Ch-880	.034	5B	.015	5	23	10.00	2 1/2	1 1/2 P to 1 1/2 P	0 to 1 1/2 P	1/8 to 1/4	7° 10'	
DE SOTO																		
S19.....1954	8-3 1/2 x 3 1/2	.004	12B	AA	AA	AL-4S-140	.035	4B	.017	5	22	7.50	2 1/2	1 1/2 N to 3 N	1 1/2 N to 1 1/2 P	0 to 1/8	5 1/2	
S20.....1954	8-3 1/2 x 3 1/2	.004	12B	AA	AA	AL-4S-140	.035	4B	.017	5	22	7.50	2 1/2	1 1/2 N to 3 N	1 1/2 N to 1 1/2 P	0 to 1/8	5 1/2	

TUNE-UP DATA ON 1954-1959 CARS

MAKE AND MODEL	No. of Cylinders, Bore and Stroke (in.)	VALVES		IGNITION				Crankcase Capacity (Qts.)	Cooling System Capacity (Qts.)	Compression Ratio (Standard Head)	CRANK- PIN		FRONT AXLE					
		Inlet Tappet Clearance for Valve Timing (in.)	Intake Valve Opens Deg. Before or After T.C.	Operating Tappet Clearance (in.)		Spark Plug					Timing	Diam (in.)	Length (in.)	Caster (Deg.)	Camber (Deg.)	Toe-In (in.)	Kingpin Inclination (Deg.)	
				Intake	Exhaust	Make and Model	Gap (in.)											
																		Spark Occurs— No. Deg. Before or After T.C.	Breaker Gap (in.)
DODGE—Cont.																		
LD2.....1956	6-3 1/2 x 3 1/2	.....	108	AA	AA	AL-AGR-42	.035	68	.017	5	20	9.00	2 1/2	1 1/2	0 to 1° P	0 to 1° P	to 1/8	6 1/2
LD3.....1956	8-4 1/2 x 3 1/2	.....	158	AA	AA	AL-AR-42	.035	68	.017	4	16	10.00	2 1/2	1 1/2	0 to 1° P	0 to 1° P	to 1/8	6 1/2
D500.....1956	8-4 1/2 x 3 1/2	.....	158	AA	AA	AL-AR-32	.035	68	.017	4	16	10.00	2 1/2	1 1/2	0 to 1° P	0 to 1° P	to 1/8	6 1/2
MD1.....1959	6-3 1/2 x 4 1/2	.....	128	.010H	.010H	AL-AR-51	.025	2 1/2	.020	5	13	8.00	2 1/2	1 1/2	0 to 1° N	0 to 1° N	to 1/8	6 1/2
MD2.....1959	8-3 1/2 x 3 1/2	.....	148	AA	AA	AL-AR-42	.035	108	.017	5	20	9.20	2 1/2	1 1/2	0 to 1° N	0 to 1° N	to 1/8	6 1/2
MD3.....1959	8-4 1/2 x 3 1/2	.....	158	AA	AA	AL-A-42	.035	108	.017	5	16	10.10	2 1/2	1 1/2	0 to 1° N	0 to 1° N	to 1/8	6 1/2
D500.....1959	8-4 1/2 x 3 1/2	.....	208	AA	AA	AL-A-42	.035	108	.017	5	16	10.00	2 1/2	1 1/2	0 to 1° N	0 to 1° N	to 1/8	6 1/2
EDSEL																		
Ranger, Pacer.....1958	8-4 1/2 x 3 1/2	.....	228	AA	AA	Ch-F-11-Y	.034	78	.015	5	18 1/2	10.50	2 1/2	1 1/2	0 to 1° P	1° P to 1° P	to 1/8	7
Corsair, Citation.....1958	8-4 1/2 x 3 1/2	.....	228	AA	AA	Ch-F-11-Y	.034	78	.015	5	22	10.50	2 1/2	1 1/2	0 to 1° P	0 to 1° P	to 1/8	7
Ranger.....1959	6-3 1/2 x 3 1/2	.....	178	.019H	.019H	Ch-870	.034	48	.025	4	15	8.40	2 1/2	1 1/2	0 to 1° P	1° P to 1° P	to 1/8	6 1/2
Ranger.....1959	8-3 1/2 x 3 1/2	.....	128	.019H	.019H	Ch-F-14-Y	.034	38	.015	5	19	8.80	2 1/2	1 1/2	0 to 1° P	1° P to 1° P	to 1/8	6 1/2
Corsair.....1959	8-4 1/2 x 3 1/2	.....	228	AA	AA	Ch-F-11-Y	.034	38	.015	5	19	8.90	2 1/2	1 1/2	0 to 1° P	1° P to 1° P	to 1/8	6 1/2
Ranger, Corsair.....1959	8-4 1/2 x 3 1/2	.....	228	AA	AA	Ch-F-11-Y	.034	38	.015	5	19	8.60	2 1/2	1 1/2	0 to 1° P	1° P to 1° P	to 1/8	6 1/2
FORD																		
6.....1954	6-3 1/2 x 3 1/2	.013	138	.015H	.019H	Ch-H-10	.035	38	.025	4	15	7.20	2 1/2	1 1/2	0 to 1° P	0 to 1° P	to 1/8	7 7/8
V8.....1954	8-3 1/2 x 3 1/2	.019 1/2	68	.019H	.019H	Ch-H-10	.035	68	.015	5	20	7.20	2 1/2	1 1/2	0 to 1° P	0 to 1° P	to 1/8	7 7/8
6.....1955	6-3 1/2 x 3 1/2	ER	138	.015H	.019H	Ch-870	.034	38	.025	4	15	7.50	2 1/2	1 1/2	0 to 1° P	1° P to 1° P	to 1/8	7 7/8
V8.....1955	8-3 1/2 x 3 1/2	ER	128	.019H	.019H	Ch-870	.034	68	.015	5	19	7.60	2 1/2	1 1/2	0 to 1° P	1° P to 1° P	to 1/8	7 7/8
40A, 40B.....1955	8-3 1/2 x 3 1/2	.016 1/2	128	.019H	.019H	Ch-870	.034	68	.015	5	20	8.10	2 1/2	1 1/2	0 to 1° P	1° P to 1° P	to 1/8	7 7/8
6.....1956	6-3 1/2 x 3 1/2	.019H	248	.019H	.019H	Ch-870	.034	48	.025	4	14 1/2	8.00	2 1/2	1 1/2	0 to 1° P	1° P to 1° P	to 1/8	7 7/8
6, Main, Cust.....1956	8-3 1/2 x 3 1/2	.019H	128	.019H	.019H	Ch-870	.034	38	.015	5	19	8.00	2 1/2	1 1/2	0 to 1° P	1° P to 1° P	to 1/8	7 7/8
6, Fairlane.....1956	8-3 1/2 x 3 1/2	.019H	128	.019H	.019H	Ch-870	.034	38	.015	5	19	8.00	2 1/2	1 1/2	0 to 1° P	1° P to 1° P	to 1/8	7 7/8
40A, 40B.....1956	8-3 1/2 x 3 1/2	.019H	128	.019H	.019H	Ch-870	.034	38	.015	5	21	8.40	2 1/2	1 1/2	0 to 1° P	1° P to 1° P	to 1/8	7 7/8
40A, 40B.....1956	8-3 1/2 x 3 1/2	.019H	128	.019H	.019H	Ch-870	.034	38	.015	5	21	(k)	2 1/2	1 1/2	0 to 1° P	1° P to 1° P	to 1/8	7 7/8
6.....1957	6-3 1/2 x 3 1/2	.019H	178	.019H	.019H	Ch-870	.034	48	.025	4	15	8.60	2 1/2	1 1/2	0 to 1° P	0 to 1° P	to 1/8	7 7/8
6, Cust., Cust. 300.....1957	8-3 1/2 x 3 1/2	.019H	188	.019H	.019H	Ch-870	.034	48	.025	5	19	8.60	2 1/2	1 1/2	0 to 1° P	0 to 1° P	to 1/8	7 7/8
6, Fairlane, Fair. 500.....1957	8-3 1/2 x 3 1/2	.019H	188	.019H	.019H	Ch-870	.034	48	.025	5	19	9.10	2 1/2	1 1/2	0 to 1° P	0 to 1° P	to 1/8	7 7/8
40A, 40B.....1957	8-3 1/2 x 3 1/2	.019H	188	.019H	.019H	Ch-870	.034	38	.015	5	20	9.10	2 1/2	1 1/2	0 to 1° P	0 to 1° P	to 1/8	7 7/8
40A, 40B.....1957	8-3 1/2 x 3 1/2	.019H	188	.019H	.019H	Ch-870	.034	38	.015	5	20	9.70	2 1/2	1 1/2	0 to 1° P	0 to 1° P	to 1/8	7 7/8
6.....1958	6-3 1/2 x 3 1/2	.019H	178	.019H	.019H	Ch-870	.034	48	.025	4	15	8.60	2 1/2	1 1/2	0 to 1° P	0 to 1° P	to 1/8	7 7/8
6, Cust. 300, Fair.....1958	8-3 1/2 x 3 1/2	.019H	188	.019H	.019H	Ch-F-11-Y	.034	38	.015	5	19	9.10	2 1/2	1 1/2	0 to 1° P	0 to 1° P	to 1/8	7 7/8
6, Cust. 300, Fair. 500.....1958	8-4 1/2 x 3 1/2	.026H	218	.026H	.026H	Ch-F-11-Y	.034	38	.015	5	19	9.50	2 1/2	1 1/2	0 to 1° P	0 to 1° P	to 1/8	7 7/8
6, Fair. 500.....1958	8-4 1/2 x 3 1/2	.026H	218	.026H	.026H	Ch-F-11-Y	.034	38	.015	5	19	10.20	2 1/2	1 1/2	0 to 1° P	0 to 1° P	to 1/8	7 7/8
63A.....1959	8-4 1/2 x 3 1/2	.025H	218	.025H	.025H	Ch-F-11-Y	.034	48	.015	5	19 1/2	10.20	2 1/2	1 1/2	0 to 1° P	0 to 1° P	to 1/8	7 7/8
6.....1959	6-3 1/2 x 3 1/2	.019H	178	.019H	.019H	Ch-870	.034	48	.025	4	15	8.40	2 1/2	1 1/2	0 to 1° P	0 to 1° P	to 1/8	6 1/2
6.....1959	8-3 1/2 x 3 1/2	.019H	128	.019H	.019H	Ch-F-14-Y	.034	38	.015	5	19	8.80	2 1/2	1 1/2	0 to 1° P	0 to 1° P	to 1/8	6 1/2
6.....1959	8-4 1/2 x 3 1/2	.022	228	AA	AA	Ch-F-11-Y	.034	38	.015	5	19	8.90	2 1/2	1 1/2	0 to 1° P	0 to 1° P	to 1/8	6 1/2
6.....1959	8-4 1/2 x 3 1/2	.022	228	AA	AA	Ch-F-11-Y	.034	38	.015	5	19	9.60	2 1/2	1 1/2	0 to 1° P	0 to 1° P	to 1/8	6 1/2
63A, 76A.....1959	8-4 1/2 x 3 1/2	.022	228	AA	AA	Ch-F-11-Y	.034	48	.015	5	19 1/2	9.60	2 1/2	1 1/2	0 to 1° P	0 to 1° P	to 1/8	6 1/2
63A, 76A.....1959	8-4 1/2 x 3 1/2	.022	228	AA	AA	Ch-F-11-Y	.034	48	.015	5	22 1/2	10.00	2 1/2	1 1/2	0 to 1° P	0 to 1° P	to 1/8	6 1/2
IMPERIAL																		
C64, C66.....1954	8-3 1/2 x 3 1/2	VT5	158	AA	AA	AL-4GS-150	.035	68	.017	5	25	7.50	2 1/2	1 1/2	1N to 3N	1N to 3N	0 to 1/8	7 1/2
C69.....1955	8-3 1/2 x 3 1/2	VT5	158	AA	AA	AL-4GS-175	.035	68	.017	5	25	8.50	2 1/2	1 1/2	0 to 2N	0 to 2N	to 1/8	5 1/2
C70.....1955	8-3 1/2 x 3 1/2	VT5	158	AA	AA	AL-4GS-175	.035	68	.017	5	25	8.50	2 1/2	1 1/2	0 to 2N	0 to 2N	to 1/8	7
C70.....1956	8-3 1/2 x 3 1/2	VT5	158	AA	AA	AL-AGR-42	.035	68	.017	5	25	9.00	2 1/2	1 1/2	0 to 2N	0 to 2N	to 1/8	7
C73.....1956	8-3 1/2 x 3 1/2	VT5	158	AA	AA	AL-AGR-42	.035	68	.017	5	25	9.00	2 1/2	1 1/2	0 to 2N	0 to 2N	to 1/8	5 1/2
IM1.....1957	8-4 1/2 x 3 1/2	VT5	158	AA	AA	AL-AGR-42	.035	68	.017	5	24	9.25	2 1/2	1 1/2	0 to 1° P	0 to 1° P	to 1/8	6 1/2
LY1.....1958	8-4 1/2 x 3 1/2	VT5	158	AA	AA	AL-AGR-42	.035	68	.017	5	24	10.00	2 1/2	1 1/2	0 to 1° P	0 to 1° P	to 1/8	6 1/2
MY1.....1958	8-4 1/2 x 3 1/2	VT5	158	AA	AA	AL-A-42	.035	108	.017	5	16	10.10	2 1/2	1 1/2	0 to 1° P	0 to 1° P	to 1/8	6 1/2
LINCOLN																		
V8.....1954	8-3 1/2 x 3 1/2	ER	188	AA	AA	Ch-H-10	.035	38	.015	5	22 1/2	8.00	2 1/2	1 1/2	0 to 1° N	0 to 1° P	to 1/8	7 10"
73A, 73B.....1955	8-3 1/2 x 3 1/2	ER	88	AA	AA	Ch-870	.034	38	.015	5	23	8.50	2 1/2	1 1/2	0 to 1° N	0 to 1° N	to 1/8	7 10"
73A, 73B.....1956	8-4 1/2 x 3 1/2	ER	188	AA	AA	Ch-860	.034	58	.015	5	23 1/2	9.00	2 1/2	1 1/2	0 to 1° N	0 to 1° N	to 1/8	7 12"
57A, B, 58A, B, 60A, B, 70B.....1957	8-4 1/2 x 3 1/2	ER	188	AA	AA	Ch-860	.034	58	.015	5	23	10.00	2 1/2	1 1/2	0 to 1° N	0 to 1° P	to 1/8	7 12"
8.....1958	8-4 1/2 x 3 1/2	ER	278	AA	AA	Ch-F-11-Y	.032	68	.015	5	23	10.50	2 1/2	1 1/2	0 to 1° N	0 to 1° P	to 1/8	7 26 10"
8.....1959	8-4 1/2 x 3 1/2	ER	228	AA	AA	Ch-F-11-Y	.032	68	.015	5	23	10.00	2 1/2	1 1/2	0 to 1° N	0 to 1° P	to 1/8	7 26 10"
MERCURY																		
V8.....1954	8-3 1/2 x 3 1/2	.017 1/2	158	.019H	.019H	Ch-H-10	.031	38	.015	5	19	7.50	2 1/2	1 1/2	0 to 1° N	0 to 1° P	to 1/8	7
Custom, Monterey.....1955	8-3 1/2 x 3 1/2	ER	128	.019H	.019H	Ch-870	.034	38	.015	5	19	7.60	2 1/2	1 1/2	0 to 1° N	0 to 1° P	to 1/8	7
Montclair.....1955	8-3 1/2 x 3 1/2	ER	128	.019H	.019H	Ch-870	.034	38	.015	5	19	8.50	2 1/2	1 1/2	0 to 1° N	0 to 1° P	to 1/8	7
8.....1956	8-3 1/2 x 3 1/2	.019H	128	.019H	.019H	Ch-870	.034	38	.015	5	19	8.00	2 1/2	1 1/2	0 to 1° N	0 to 1° P	to 1/8	7
57A, B; 58A, B.....1957	8-3 1/2 x 3 1/2	.019H	188	.019H	.019H	Ch-860	.034	38	.015	5	20	9.70	2 1/2	1 1/2	0 to 1° N	0 to 1° P	to 1/8	7
75A.....1957	8-4 1/2 x 3 1/2	ER	188	AA	AA	Ch-860	.034	38	.015	5	23	9.70	2 1/2	1 1/2	0 to 1° N	0 to 1° P	to 1/8	7
Monterey.....1958	8-4 1/2 x 3 1/2	ER	348	AA	AA	Ch-860	.034	48	.015	5	20	10.50	2 1/2	1 1/2	0 to 1° N	0 to 1° P	to 1/8	7
Montclair.....1958	8-4 1/2 x 3 1/2	ER	348	AA	AA	Ch-860	.034	48	.015	5	20	10.50						

TUNE-UP DATA ON 1954-1959 CARS

MAKE AND MODEL	No. of Cylinders, Bore and Stroke (In.)	Inlet Tapset Clearance for Valve Timing (In.)	VALVES			IGNITION						Cooling System Capacity (Qts.)	Compression Ratio (Standard Head)	CRANK-PIN		FRONT AXLE			
			Intake Valve Opens Deg. Before or After T.C.	Operating Tapset Clearance (In.)		Spark Plug Make and Model	Timing			Diam (In.)	Length (In.)			Caster (Deg.)	Camber (Deg.)	Toe-In (In.)	Kingpin Inclination (Deg.)		
				Intake	Exhaust		Gap (In.)	Spark Occurs—No. Deg. Before or After T.C.	Breaker Gap (In.)									Crankcase Capacity (Qts.)	
5540.....1955	8-3 1/2 x 3 1/2	NU	14B	AA	AA	(g)	.035	6B	.016	5	28	8.50	2 1/2	1N to 1 1/2 N	1N to 1P	0 to 1/2	5° 50'		
5560, 5560.....1955	8-4 x 3 1/2	NU	14B	AA	AA	Ch-H-10	.035	6B	.016	5	28	8.50	2 1/2	1N to 1 1/2 N	1N to 1P	0 to 1/2	5° 50'		
5640, 5660.....1956	8-4 1/2 x 3 1/2	NU	14B	AA	AA	Ch-H-18	.035	5B	.016	5	28	9.50	2 1/2	1N to 1 1/2 N	1N to 1P	0 to 1/2	5° 50'		
5680, 5688.....1956	8-4 1/2 x 3 1/2	NU	14B	AA	AA	Ch-H-18	.035	10B	.016	5	28	10.00	2 1/2	1N to 1 1/2 N	1N to 1P	0 to 1/2	5° 50'		
57L.....1957	8-3 1/2 x 3 1/2	.030	11B	.024H	.024H	Ch-H-10	.036	4B	.016	5	17	7.50	2	1N to 2 1/2 N	0 to 1P	to 1/2	6°		
58L.....1958	8-3 1/2 x 3 1/2		11B	.024H	.024H	Ch-H-18Y	.036	4B	.016	5	17	8.30	2	1N to 2 1/2 N	0 to 1P	to 1/2	6°		
58L-K.....1958	8-3 1/2 x 3 1/2		11B	.024H	.024H	Ch-H-18Y	.036	4B	.016	5	17	7.80	2	1N to 2 1/2 N	0 to 1P	to 1/2	6°		
PLYMOUTH																			
P-25 (Early).....1954	6-3 1/2 x 4 1/2	.014	12B	.010H	.010H	AL-4S-140	.035	2B	.020	5	13	7.10	2 1/2	1N to 1P	1N to 1P	0 to 1/2	5°		
P-25 (Late).....1954	6-3 1/2 x 4 1/2	.014	12B	.010H	.010H	AL-4S-140	.035	2B	.020	5	14	7.25	2 1/2	1N to 1P	1N to 1P	0 to 1/2	5°		
P-26.....1955	6-3 1/2 x 4 1/2	.014	12B	.010H	.010H	AL-4S-140	.035	2B	.020	5	13	7.40	2 1/2	0 to 2N	1N to 1P	0 to 1/2	5°		
P-27.....1955	8-3 1/2 x 3 1/2	VTS	14B	AA	AA	AL-4S-165	.035	4B	.018	5	19	7.60	1 1/2	0 to 2N	1N to 1P	0 to 1/2	5°		
P-27.....1955	8-3 1/2 x 3 1/2	VTS	14B	AA	AA	AL-4S-165	.035	4B	.018	5	19	7.60	1 1/2	0 to 2N	1N to 1P	0 to 1/2	5°		
P-28.....1956	6-3 1/2 x 4 1/2	.014	12B	.010H	.010H	AL-AR-50	.035	2B	.020	5	13	7.80	2 1/2	0 to 2N	1N to 1P	0 to 1/2	5°		
P-29.....1956	8-3 1/2 x 3 1/2	VTS	14B	AA	AA	AL-AR-52	.035	4B	.017	5	19	8.00	1 1/2	0 to 2N	1N to 1P	0 to 1/2	5°		
P-29.....1956	8-3 1/2 x 3 1/2	VTS	14B	.012H	.020H	AL-AR-52	.035	4B	.017	5	20	8.00	2 1/2	0 to 2N	1N to 1P	0 to 1/2	5°		
P-29.....1956	8-3 1/2 x 3 1/2	VTS	9B	.010H	.013H	AL-4S-250	.035	4B	.017	5	20	9.25	2 1/2	0 to 2N	1N to 1P	0 to 1/2	5°		
P-30.....1957	6-3 1/2 x 4 1/2	.014	12B	.010H	.010H	AL-AR-51	.035	TC	.020	5	13	8.00	2 1/2	0 to 1 1/2 N	0 to 1P	to 1/2	6°		
P-31.....1957	8-3 1/2 x 3 1/2	VTS	9B	.008H	.018H	AL-AR-52	.035	4B	.017	5	20	8.00	2 1/2	0 to 1 1/2 N	0 to 1P	to 1/2	6°		
P-31-2, P-31-3.....1957	8-3 1/2 x 3 1/2	VTS	9B	.008H	.018H	AL-AR-52	.035	8B	.017	5	20	8.50	2 1/2	0 to 1 1/2 N	0 to 1P	to 1/2	6°		
P-31 Fury.....1957	8-3 1/2 x 3 1/2	VTS	17B	.008H	.018H	AL-AR-32	.035	8B	.017	5	20	9.25	2 1/2	0 to 1 1/2 N	0 to 1P	to 1/2	6°		
LP1.....1958	8-3 1/2 x 4 1/2		12B	.010H	.010H	AL-AR-51	.035	2B	.020	5	13	8.00	2 1/2	0 to 1 1/2 N	0 to 1P	to 1/2	6°		
LP2.....1958	8-3 1/2 x 4 1/2		9B	.012H	.018H	AL-AR-42	.035	10B	.017	5	20	9.00	2 1/2	0 to 1 1/2 N	0 to 1P	to 1/2	6°		
LP2-H Fury.....1958	8-3 1/2 x 4 1/2		17B	.018H	.018H	AL-AR-42	.035	10B	.017	5	20	9.25	2 1/2	0 to 1 1/2 N	0 to 1P	to 1/2	6°		
Golden Commande.....1958	8-4 1/2 x 3 1/2		15B	AA	AA	AL-AR-32	.035	8B	.017	4	16	10.00	2 1/2	0 to 1 1/2 N	0 to 1P	to 1/2	6°		
MP1.....1959	8-3 1/2 x 3 1/2		12B	.010H	.010H	AL-AR-51	.035	2 1/2 B	.020	5	13	8.00	2 1/2	0 to 1 1/2 N	0 to 1P	to 1/2	6°		
MP2.....1959	8-3 1/2 x 3 1/2		17B	.010H	.018H	AL-AR-42	.035	10B	.017	5	20	9.00	2 1/2	0 to 1 1/2 N	0 to 1P	to 1/2	6°		
MP2 Sport Fury.....1959	8-3 1/2 x 3 1/2		13B	.010H	.018H	AL-AR-42	.035	10B	.017	5	20	9.00	2 1/2	0 to 1 1/2 N	0 to 1P	to 1/2	6°		
Golden Commande.....1959	8-4 1/2 x 3 1/2		20B	AA	AA	AL-AR-32	.035	7 1/2 B	.017	5	16	10.00	2 1/2	0 to 1 1/2 N	0 to 1P	to 1/2	6°		
PONTIAC																			
25.....1954	6-3 1/2 x 4 1/2	.015C	12 1/2 B	.012H	.012H	AC-44-5	.028	3B	.016	5	18 1/2	7.00	2 1/2	1 1/2 N to 1 1/2 P	0 to 1P	0 to 1/2	.....	
27, 28.....1954	6-3 1/2 x 4 1/2	.015C	5B	.012H	.012H	AC-44-5	.028	6B 1/2	.016	5	18 1/2	6.80	2 1/2	1 1/2 N to 1 1/2 P	0 to 1P	0 to 1/2	.....	
27, 28.....1955	8-3 1/2 x 3 1/2	ER	22B	AA	AA	AC-44-5	.036	5B	.016	5	24	8.00	2 1/2	1 1/2 N to 1 1/2 N	0 to 1P	0 to 1/2	.....	
27, 28.....1956	8-3 1/2 x 3 1/2	ER	22B*	AA	AA	AC-44	.036	5B	.016	5	22 1/2	8.90	2 1/2	1 1/2 N to 1 1/2 N	0 to 1P	0 to 1/2	1° 20'		
27, 28.....1957	8-3 1/2 x 3 1/2	ER	22B	AA	AA	AC-45	.036	6B	.016	5	21 1/2	8.50	2 1/2	1 1/2 N to 1 1/2 N	0 to 1P	0 to 1/2	1° 20'		
25, 27, 28.....1958	8-4 1/2 x 3 1/2		22B	AA	AA	AC-45	.036	6B	.016	5	21 1/2	8.60	2 1/2	0 to 1N	0 to 1P	to 1/2	4° 50'		
21, 24, 27, 28.....1958	8-4 1/2 x 3 1/2		22B	AA	AA	AC-45	.036	6B	.016	5	21 1/2	8.60	2 1/2	1N to 2N	1 1/2 N to 1 1/2 P	0 to 1/2	4° 50'		
RAMBLER																			
5410.....1954	6-3 1/2 x 4 1/2	.015	10B	.015H	.015H	AL-A7A	.030	TC	.022	4	11	7.25	2 1/2	1 P to 1 1/2 P	1 P to 1P	to 1/2	8°		
5410A.....1954	6-3 1/2 x 4 1/2	.015	10B	.015H	.015H	AL-A7A	.030	4A	.022	4	11	7.30	2 1/2	1 P to 1 1/2 P	1 P to 1P	to 1/2	8°		
5510.....1955	6-3 1/2 x 4 1/2	.015	10B	.015H	.015H	AL-A7A	.030	4A	.022	4	11	7.30	2 1/2	1 P to 1 1/2 P	1 P to 1P	to 1/2	8°		
5610.....1956	6-3 1/2 x 4 1/2	.015	12 1/2 B	.012H	.016H	AL-7J	.030	TC	.016	4	10	7.47	2 1/2	0 to 1 P	1 N to 1 P	to 1/2	6° 11'		
5710.....1957	6-3 1/2 x 4 1/2	.017	12 1/2 B	.012H	.016H	AL-7J	.035	TC	.016	4	10	8.25	2 1/2	0 to 1 P	1 N to 1 P	to 1/2	6° 11'		
5720.....1957	8-3 1/2 x 3 1/2	.020	12 1/2 B	.012H	.014H	AL-7J	.035	5B	.016	5	20	8.00	2 1/2	0 to 1 P	1 N to 1 P	to 1/2	6° 11'		
5730.....1957	8-4 x 3 1/2	.020	12 1/2 B	.012H	.014H	AL-7J	.035	5B	.016	5	19	9.50	2 1/2	0 to 1 P	1 N to 1 P	to 1/2	6° 11'		
5801.....1958	6-3 1/2 x 4 1/2		10B	.016C	.018C	AL-AL-7	.035	3B	.016	4	11	8.00	2 1/2	1 N to 1 P	0 to 1 P	to 1/2	8°		
5810.....1958	6-3 1/2 x 4 1/2		12 1/2 B	.012H	.016H	AL-7J	.035	5B	.016	4	10	8.70	2 1/2	0 to 1 P	1 N to 1 P	to 1/2	6° 11'		
5820.....1958	6-3 1/2 x 3 1/2		12 1/2 B	.012H	.014H	AL-7J	.035	5B	.016	4	20	8.70	2 1/2	0 to 1 P	1 N to 1 P	to 1/2	6° 11'		
5880.....1958	8-4 x 3 1/2		12 1/2 B	AA	AA	AL-7J	.035	5B	.016	4	19	9.70	2 1/2	0 to 1 P	1 N to 1 P	to 1/2	6° 11'		
5901.....1959	6-3 1/2 x 4 1/2		10B	.019C	.018C	AL-AL-7	.035	3B	.016	4	11	8.00	2 1/2	0 to 1 P	1 N to 1 P	to 1/2	8°		
5910.....1959	6-3 1/2 x 4 1/2		12 1/2 B	.012H	.016H	AL-AL-7	.035	5B	.016	4	20	8.70	2 1/2	0 to 1 P	1 N to 1 P	to 1/2	6° 11'		
5920.....1959	8-3 1/2 x 3 1/2		12 1/2 B	.012H	.014H	AL-AL-7	.035	TC	.016	4	20	8.70	2 1/2	0 to 1 P	1 N to 1 P	to 1/2	6° 11'		
5980.....1959	8-4 x 3 1/2		12 1/2 B	AA	AA	AL-AL-7	.035	5B	.016	4	19	9.70	2 1/2	0 to 1 P	1 N to 1 P	to 1/2	6° 11'		
STUDEBAKER																			
15G.....1954	6-3 x 4	.020	15B	.016C	.016C	Ch-J-7	.031	2B	.020	5	10	7.50	1 1/2	1N to 2 1/2 N	0 to 1P	to 1/2	6°		
3H, 5HY.....1954	8-3 1/2 x 3 1/2	.030	11B	.022H	.022H	Ch-H-11	.036	4B	.013	6	17 1/2	7.50	2	1N to 2 1/2 N	0 to 1P	to 1/2	6°		
16G6.....1955	6-3 x 4 1/2	.020	15B	.016C	.016C	Ch-J-7	.031	2B	.020	5	10	7.50	1 1/2	1N to 2 1/2 N	0 to 1P	to 1/2	6°		
16G6 (Early).....1955	8-3 1/2 x 2 1/2	.030	19B	.024H	.024H	Ch-H-11	.036	6B	.013	6	17 1/2	7.50	2	1N to 2 1/2 N	0 to 1P	to 1/2	6°		
16G6 (Late), 6H.....1955	8-3 1/2 x 3 1/2	.030	11B	.024H	.024H	Ch-H-11	.036	4B	.013	6	17 1/2	7.50	2	1N to 2 1/2 N	0 to 1P	to 1/2	6°		
56B.....1956	8-3 1/2 x 3 1/2	.030	11B	.024H	.024H	Ch-H-11	.036	4B	.016	5	17	7.80	2	1N to 2 1/2 N	0 to 1P	to 1/2	6°		
56G.....1956	6-3 x 4 1/2	.020	15B	.016C	.016C	Ch-J-7	.031	2B	.020	5	11	7.80	1 1/2	1N to 2 1/2 N	0 to 1P	to 1/2	6°		
56H.....1956	8-3 1/2 x 3 1/2	.030	11B	.024H	.024H	Ch-H-11	.036	4B	.016	5	17	7.80	2	1N to 2 1/2 N	0 to 1P	to 1/2	6°		
56L.....1956	8-4 x 3 1/2		14B	AA	AA	Ch-N1887B	.036	5B	.015	5	25	9.50	2 1/2	1N to 2 1/2 N	0 to 1P	to 1/2	6°		
57G.....1957	6-3 x 4 1/2	.020	15B	.016C	.016C	Ch-J-7	.031	2B	.020	5	11	7.80	1 1/2	1N to 2 1/2 N	0 to 1P	to 1/2	6°		
57B.....1957	8-3 1/2 x 3 1/2	.030	11B	.024H	.024H	Ch-H-11	.036	4B	.016	5	17	8.30	2	1N to 2 1/2 N	0 to 1P	to 1/2	6°		
57H.....1957	8-3 1/2 x 3 1/2	.030	11B	.024H	.024H	Ch-H-11	.036	4B	.016	5	17	8.30	2	1N to 2 1/2 N	0 to 1P	to 1/2	6°		
57H Golden Hawk.....1957	8-3 1/2 x 3 1/2	.030	11B	.024H	.024H	Ch-H-11	.036	4B	.016	5	17	7.50	2	1N to 2 1/2 N	0 to 1P	to 1/2	6°		
59G.....1958	6-3 x 4 1/2		15B	.016C	.016C	Ch-J-7	.031	2B	.020	5	11	7.80	1 1/2	1N to 2 1/2 N	0 to 1P	to 1/2	6°		
59B.....1958	8-3 1/2 x 3 1/2		11B	.024H	.024H	Ch-H-18-Y	.036												

1959...IMPORTED CAR SERVICE DATA

MAKE AND MODEL	IGNITION SYSTEM							VALVE TIMING				WHEEL ALIGNMENT						
	Spark Plug	Gap (In.)	Thread Size (Mm.)	Breaker Point Gap (In.)	Cam Angle (Deg.)	Timing (Deg.)	Timing Mark Location	Firing Order	Location of No. 1 Cylinder	Tapet Clearance		Timing Mark Location	Intake Opens (Deg. B.T.C.)	Caster (Deg.)	Camber (Deg.)	Toe-In (In.)	King Pin Inclination (Deg.)	
										Intake (In.)	Exhaust (In.)							
A. C.—Britain.....Ace, Aceca	Lo-HN	.017	14	.015	.....	12 1/2	B	.....	(1)	...	.020H	.020H	Fly	12 1/2	5	1P to 2P	1/4	9
ALFA-ROMEO—Italy, Giulietta	K-PTENL80	.019	10	.015	.....	88	Fly	(2)	F	.....	.012H	.012H	FCC	TC	1 5	1P to 2P	1/4	8 35'
ALFA-ROMEO—Italy, Giulietta	Mar-CW225G	.....	14	.015	.....	80	Fly	(2)	F	.....	.016	.022	Fly	22	.....	0	.....	8 35'
ALFA-ROMEO—Italy, Giulietta	Mar-CW1000B	.....	14	.015	.....	80	Fly	(2)	F	.....	.....	.....	.....	34	.....	0	.....	8 35'
ALFA-ROMEO—Italy, Giulietta	Mar-CW240B	.017	14	.015	.....	100	Fly	(3)	F	.....	.017	.019	Fly	31 3/4	.....	2 1/2 to 4	1/4	8 35'
ALFA-ROMEO—Italy, Giulietta	Ch-L10	.025	14	.014	.....	58	Fly	(1)	F	.....	.009H	.009H	Fly	13	1 1/2	1	1/4	9
ARMSTRONG-SIDDELEY—	Lo-CLN-H	.031	14	.015	.....	58	CP	(1)	F	.....	.016	.014	CC	8	1	2	1/4	5 1/2
ARMSTRONG-SIDDELEY—	Lo-HLN	.030	14	.015	.....	48	Fly	(1)	F	.....	.008	.008	CC	12	1 1/2	1	0 to 1/4	5 1/2
ASTON-MARTIN—Britain	K-F80	.022	14	.012	.....	100	Fly	(1)	F	.....	.010C	.010C	Fly	17 1/2	2 1/4	2 1/4	1/4	5
ASTON-MARTIN—Britain	K-FE100	.022	14	.012	.....	118	CD	(1)	F	.....	.011C	.013C	CD	25 1/2	2 1/2	1	1/4	5
AUSTIN—Britain.....A35, A40	Ch-N5	.024	14	.014	.....	58	CP	(2)	F	.....	.012	.012	Ca	5	3	1	1/4	6 1/2
AUSTIN—Britain.....A35	Ch-N5	.024	14	.014	.....	58	CP	(2)	F	.....	.012	.012	Ca	5	1 1/2	1	0 to 1/4	6 1/2
AUSTIN—Britain.....A95, A105	Ch-N5	.024	14	.014	.....	TC	CP	(1)	.....	.....	.012	.012	Ca	5	1 1/4	1 1/4	0 to 1/4	7
AUSTIN-HEALEY—Britain	Ch-N5	.025	14	.015	.....	58	.....	(2)	.....	.....	.012	.012	CC	5	3	1	1/4	6 1/2
AUSTIN-HEALEY—Britain	Ch-NA8	.025	14	.015	.....	68	F-C	(1)	.....	.....	.012	.012	CC	5	2	1	1/4	6 1/2
BENTLEY—Britain	Ch-N5	.025	14	.020	44	2B	Fly	(4)	.....	.....	.006	.012	Fly	TC	1N to 1P	0	1/4	4 1/2
BENTLEY—Britain	Ch-N5	.025	14	.020	44	2B	Fly	(4)	.....	.....	.016	.012	Fly	TC	1N to 1P	0	1/4	4 1/2
BERKELEY—Britain, Twosome	K-FE80	.....	.....	.....	.....	.....	.....	(5)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
BMW—Germany.....600	Bo-W240T2	.022	14	.....	.....	98	.....	(6)	.....	.....	.006	.008	Fa	22	16	1 1/2	1/4	5
BMW—Germany.....2.6, 2.8 Lurus, 3.2	Bo-W225T2	.025	14	.....	.....	88	VD	(7)	FR	.....	.010	.010	VD	2	1	1	1/4	3 1/2
BMW—Germany.....3.2 Super	Bo-W225T2	.025	14	.....	.....	88	VD	(7)	FR	.....	.010	.010	VD	10	1	1	1/4	3 1/2
BMW—Germany.....503	Bo-W225T2	.025	14	.....	.....	88	VD	(7)	FR	.....	.010	.010	VD	10	3 1/4	1	1/4	3 1/2
BMW—Germany.....507	Bo-W240T2	.025	14	.....	.....	88	VD	(7)	FR	.....	.010	.010	VD	19 1/2	3 1/4	1	1/4	3 1/2
BORGWARD—Germany	Bo-W225T1	.029	17	.016	90	TC	Fly	(2)	R	.....	.008	.008	TG	18	2 1/2 to 3 1/2	0 to 1	0	6
BORGWARD—Germany	Isabella TS	.029	17	.016	90	4A	Fly	(2)	R	.....	.008	.008	TG	18	2 1/2 to 3 1/2	0 to 1	0	6
CITROEN—Britain.....2CV	Ch-H9	.027	14	.015	.....	128	Fly	(6)	F	.....	.008H	.008H	Cap	3	1 1/4	1 1/2	1/4	.....
CITROEN—Britain.....1D19	Ch-H10	.026	14	.011	.....	108	Fly	(2)	F	.....	.008C	.010C	CC	3	1 1/4	0 to 1 1/4	1/4	.....
CITROEN—Britain.....DS19	Ch-H10	.026	14	.011	.....	88	Fly	(2)	F	.....	.008C	.010C	CC	3	1 1/4	0 to 1 1/4	1/4	.....
CITROEN—France.....2CV	Ma-CR15	.020	.....	.....	.....	.....	.....	(2)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
CITROEN—France.....1D19P	Ma-35	.021	.....	.....	.....	.....	.....	(2)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
CITROEN—France.....DS19	Ma-35B	.021	.....	.....	.....	.....	.....	(2)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
DAF—Holland.....600	Bo-W225T1	.026	14	.015	.....	58	Fly	(6)	R	.....	.....	.....	.....	.....	0	1	1/4	7 23'
DAIMLER—Britain.....Majestic	Lo-CLNH	.025	14	.014	60	108	VD	(1)	F	.....	.013	.013	TCC	13	3	1 1/2	1/4	7 1/2
DAIMLER—Britain.....Isabella TS	Lo-CLNH	.025	14	.014	60	78	Fly	(1)	F	.....	.015	.015	TCC	13	2	1 1/2	1/4	6
FAIRTHORPE—Britain	Ch-L5	.020	14	.015	.....	68	TCC	(6)	F	.....	.010	.010	.....	30	3 1/4	2	1/4	7 5'
FAIRTHORPE—Britain	Ch-N5	.025	14	.015	.....	61 1/2	CP	(2)	F	.....	.010	.010	CP	10	3 1/4	2	1/4	7 5'
FAIRTHORPE—Britain	Ch-NA10	.018	14	.015	.....	58	.....	(2)	F	.....	.006	.006	Fly	20	0	2	1/4	7
FERRARI—Italy	Ch-NA10	.....	14	.027	.....	268	Fly	(8)	FR	.....	.022	.023	Fly	24	8	1	1/4	2 1/2
FERRARI—Italy	Ma-34HF5	.....	14	.027	.....	268	Fly	(8)	FR	.....	.022	.023	Fly	24	8	1	1/4	2 1/2
FIAT—Italy.....500	Ch-H9	.029	14	.018	.....	108	CT	(6)	.....	.....	.006	.006	CC	9	8 to 10	1/4	5	
FIAT—Italy.....800	Ch-H9	.029	14	.018	.....	108	CT	(2)	.....	.....	.006	.006	CC	4	8 to 10	1/4	5	
FIAT—Italy.....800 Multipla	Mar-CW225N	.021	14	.018	.....	108	CT	(2)	.....	.....	.004	.004	CC	10	5 1/2 to 6 1/2	1/4	0 to 1/4	
FIAT—Italy.....1100/103D	Ch-H9	.029	14	.018	.....	TC	CT	(2)	.....	.....	.004	.004	CC	16	1 1/4	1 1/2	1/4	7
FIAT—Italy.....1200, 1200 Granluce	Ch-H9	.029	14	.018	.....	3A	CT	(2)	.....	.....	.004	.004	CC	16	1 1/4	1 1/2	1/4	7
FIAT—Italy.....1400B	Mar-CW225N	.022	14	.018	.....	TC	CT	(2)	.....	.....	.006	.006	CC	15	2 to 2 1/2	1/4	6 50'	
FIAT—Italy.....1900B	Mar-CW225N	.022	14	.018	.....	TC	CT	(2)	.....	.....	.006	.006	CC	10	2 to 2 1/2	1/4	6 50'	
FORD—Britain.....Popular	Ch-L10	.021	14	.015	60	48	TCC	(3)	F	.....	.013C	.016C	CC	9 1/2	4 1/2	1 1/2	1/4	4 1/4
FORD—Britain.....Escort, Squire, Anglia, Prefect	Ch-L10	.025	14	.015	60	88	CP	(3)	F	.....	.013C	.013C	CC	9 1/2	1 to 2 1/2	1 1/2 to 2 1/4	1/4	4 1/4
FORD—Britain.....Consul Mk II	Ch-N8B	.032	14	.015	55	88	CP	(3)	F	.....	.014C	.014C	CC	17	1 1/2 to 1 1/4	1 1/2 to 2 1/4	1/4	4
FORD—Britain.....Zephyr, Zodiac	Ch-N8B	.032	14	.015	32	88	CP	(1)	F	.....	.014C	.014C	CC	17	1 1/2 to 1 1/4	1 1/2 to 2 1/4	1/4	4
FORD—Germany.....Taunus 12M	Ch-H10	.029	14	.018	49	118	CP	(3)	F	.....	.015	.015	TG	5	3 1/4 to 2 1/4	0 to 1	1/4	5
FORD—Germany.....Taunus 17M	Ch-L88	.030	14	.018	49	228	CP	(3)	F	.....	.011	.014	TG	26	3 1/4 to 2 1/4	0 to 1	1/4	6 10'
FRISKY—Britain	Lo-2HN	.022	14	.020	.....	.....	.....	(6)	.....	.....	.....	.....	Fly	.....	.....	.....	.....	.....
FRISKY—Britain	K-FE70	.022	14	.022	.....	.....	.....	(6)	.....	.....	.....	.....	.....	.....	9	.....	.....	.....
GOGGOMOBIL—Germany	Ch-K9	.024	17	.014	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	9	5 1/4	1/4	.....
GOLIATH—Germany	Bo-W225T1	.028	14	.018	45	48	Fly	(9)	F	.....	.008H	.008H	.....	18	0	1 1/2	0 to 1/4	7 1/2
GOLIATH—Germany	Bo-W240T1	.028	14	.018	45	68	Fly	(9)	F	.....	.008H	.010H	.....	18	0	1 1/2	0 to 1/4	7 1/2
HEINKEL—Ireland.....T-154	Ch-L7	.022	14	.016	.....	98	.....	.....	.....	.....	.006C	.008C	Cap	18 1/2	.....	2	1/4	8
HILLMAN—Britain	Ch-N8	.025	14	.015	9	88	CP	(2)	F	.....	.012	.014	CC	10	3	3 1/4	1/4	5 1/4
HILLMAN—Britain	Ch-N8	.025	14	.015	9	108	CP	(2)	F	.....	.012	.014	CC	10	1 1/4	3 1/4	1/4	5 1/4
HOLDEN—Australia, FC Series	AC-46-5	.031	14	.014	38	20	Fly	(1)	F	.....	.008	.012	CC	6	1 to 2	0 to 2	1/4	8
HUMBER—Britain.....Hawk	Ch-N8B	.025	14	.015	9	2A	CP	(1)	F	.....	.007	.009	CC	15	0	1/4	1/4	8 1/4
HUMBER—Britain.....Super Snipe Ser. I	Ch-N5	.025	14	.015	.....	68	CP	(1)	F	.....	.014	.014	CC	20	1 1/2	1 1/2	1/4	8 1/4
ISETTA—Germany.....300	Bo-W240T1	.020	14	.....	.....	7 1/2	B	Fa	.....	.....	.006	.006	Fa	6	12	1 1/2	1/4	5
JAGUAR—Britain.....2.4 Litre	Ch-N8	.030	14	.015	35	68	Fly	(1)	R	.....	.004C	.006C	Fly	10	1 1/2 to 1 1/4	1 1/2 to 1 1/4	0 to 1/4	8 1/4
JAGUAR—Britain.....XK150	Ch-N8	.025	14	.015	35	68	VD	(1)	R	.....	.004C	.006C	VD	15	1 1/2 to 1 1/4	1 1/2 to 1 1/4	0 to 1/4	8 1/4
JAGUAR—Britain.....XK150	Ch-N8	.025	14	.015	35	28	Fly	(1)	R	.....	.004C	.006C	Fly	15	1 1/2 to 1 1/4	1 1/2 to 1 1/4	0 to 1/4	8 1/4
JAGUAR—Britain.....Mark VIII	Ch-N8	.022	14	.015	35	68	VD	(1)	R	.....	.004C	.006C	VD	15	1 1/2 to 1 1/4	1 1/2 to 1 1/4	0 to 1/4	8 1/4
JAGUAR—Britain.....Mark IX	Ch-N5	.025	14	.015	35	48	VD	(1)	R	.....	.004C	.006C	VD	15	1 1/2 to 1 1/4	1 1/2 to 1 1/4	0 to 1/4	8 1/4
JAGUAR—Britain.....XK150	Ch-N5	.025	14	.015	35	98	VD	(1)	R	.....	.004C	.006C	VD	15	1 1/2 to 1 1/4	1 1/2 to 1 1/4	0 to 1/4	8 1/4

For abbreviations table see page 52

IMPORTED CAR SERVICE DATA—continued

MAKE AND MODEL	IGNITION SYSTEM								VALVE TIMING				WHEEL ALIGNMENT					
	Spark Plug	Make and Type	Gap (In.)	Thread Size (Mm.)	Breaker Point Gap (In.)	Cam Angle (Deg.)	Timing (Deg.)	Timing Mark Location	Firing Order	Location of No. 1 Cylinder	Tapet Clearance		Timing Mark Location	Intake Opens (Deg. B.T.C.)	Caster (Deg.)	Camber (Deg.)	Toe-In (In.)	King Pin Inclination (Deg.)
											Intake (In.)	Exhaust (In.)						
JENSEN—Britain.....541R & Deluxe	Ch-N8B	.035	14	.012	..	.....	Fly	(1)	F	.012	.012	Fly	10	1½	¾	¼	7
LANCIA—Italy.....Flaminia Saloon	Ch-N5	.022	14	.018	..	11B	Fly	(10)	FL	.006	.010	Fly	11	1	2	11 to 11	4	
.....Flaminia: Sport, GT, Coupe	Ch-N5	.022	14	.018	..	11B	Fly	(10)	FL	.006	.010	Fly	13	1	2	11 to 11	4	
LLOYD—Germany.....Alexander	Ch-L85	.029	14	.016	..	3B	Fly	(6)	...	.006	.008	CS	35	0	2	0 to 1½	7
.....Alexander TS	Ch-L85	.029	14	.016	..	TC	Fly	(6)	...	.006	.008	CS	32	0	2	0 to 1½	7
MAICO—Germany.....500	Bo-225-18U2	.025	18	.016	..	30B	.....	(6)	F	.....	.....	.....	.....	3	1½	0 to 11	7°50'
MERCEDES-BENZ—Germany.....190, 190	Bo-W175(R)T22	.037	14	.018	50	8B	VD	(2)	F	.004	.008	Cam	12	3 to 4	0 to 1P	0 to 1½	5½	
.....190D	.....	.....	.....	.....	.....	.....	VD	(2)	F	.007	.007	TG	6½	3 to 4	0 to 1P	0 to 1½	5½
.....190SL	Bo-W240T21	.029	14	.018	50	9B	VD	(2)	F	.004	.008	Cam	17½	3 to 4	0 to 1P	0 to 1½	5½	
.....219	Bo-W225(R)T27	.029	14	.014	36	1A	VD	(1)	F	.005	.008	Cam	10	3 to 4	0 to 1P	0 to 1½	5½	
.....220S	Bo-W225T27½	.029½	14	.014	36	2B	VD	(1)	F	.005	.008	Cam	10	3 to 4	0 to 1P	0 to 1½	5½	
.....220SE	Bo-W225T23½	.023	14	.014	36	2B	VD	(1)	F	.005	.008	Cam	29	3 to 4	0 to 1P	0 to 1½	5½	
.....300 Automatic	Bo-W250T20½	.023	14	.014	36	.....	CV	(1)	F	.004	.008	Cam	9	2 to 3	0 to 1P	0 to 1½	2°23'
.....300SL	Ch-NA10	.022	14	.013	.....	.....	CV	(1)	F	.004	.008	Cam	20	3½ to 4½	0 to 1P	0 to 1½	2°23'
METROPOLITAN—Britain.....Magette	Ch-N5	.024	14	.014	.....	5B	CP	(2)	F	.012	.012	CP	5	.....	.....	.....	.....
MG—Britain.....Magneite	Ch-N5	.020	14	.015	60	4B	CC	(2)	F	.012H	.012H	CP	5	.....	.....	.....	.....
.....MGA	Ch-N5	.020	14	.015	60	7B	CC	(2)	F	.017H	.017H	CP	16	.....	.....	.....	.....
.....MGA Twin Cam	Ch-N5	.025	14	.015	60	7C	CP	(2)	F	.017C	.017C	CC	20	.....	.....	.....	.....
MORGAN—Britain.....4/4 Series II	Ch-L10	.025	14	.014	.....	5B	.....	(3)	...	.012	.012	CC	3½	4	2	½ to ½	2
.....Plus 4	Ch-L10S	.032	14	.012	.....	4B	CC	(2)	...	.012	.012	CC	15	4	2	½ to ½	2
MORRIS—Britain.....Minor 1000	Ch-N5	.025	14	.015	60	7C	CC	(2)	F	.012C	.012C	CP	5	3	1	½ to ½	7½	
.....Oxford, Cowley	Ch-N5	.025	14	.015	60	5B	CC	(2)	F	.015H	.015H	CP	5	3	1½	½ to ½	8½	
NISSEN—Japan.....210-S, L210-S	NGK-B54EW	.026	14	.020	53	17B	CP	(2)	...	.014	.014	CC	13	3	1½	½	6
NSU—Germany.....Prinz II	Bo-W175T2	.027	.....	.014	.....	TC	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
OPEL—Germany.....Olympia	Bo-W175T1	.037	14	.018	.....	TC	Fly	(2)	F	.008	.012	Fly	27	1½ to 2	½ to 1½	½ to ½	3½
.....Kapitan	Bo-W175T1	.037	14	.014	.....	TC	Fly	(1)	F	.008	.012	Fly	27	1 to 2	½N to 1½P	½ to ½	6
PEERLESS—Britain.....GT2	Ch-L10S	.032	14	.015	.....	4B	.....	(2)	F	.010	.010	.....	15	4	1½	½	.....
PEUGEOT—France.....403	AC-F10	.024	14	.015	57	9½B	Fly	(2)	R	.004	.008	.....	TC	1 to 3	½N to 1P	½	10
PORSCHE—Germany.....356A-1600	Bo-W225T1½	.028	14	.016	.....	5B	CP	(2)	F	.013	.013	CP	27	4½ to 5½	½P to 1½P	½ to ½	4½
.....356A-1600S	Bo-W225T1	.023	14	.016	.....	5B	CP	(2)	F	.013	.013	CP	44	4½ to 5½	½P to 1½P	½ to ½	4½
.....356A-1600GS	Bo-W240T21	.016	14	.014	23½	24B	CC	(2)	F	.006	.006	CP	38	4½ to 5½	½P to 1½P	½ to ½	4½	
PRINCE—Japan.....ALSI-1	NGK-B54E	.028	14	.014	61	8B	Fly	(2)	F	.010	.010	Fly	18½	.....	.....	0 to ½	8½
RENAULT—France.....R-1062	AC-45L	.030	14	.018	.....	2B	CP	(2)	F	.004	.008	Cap	6	10	1½	½ to ½	10
.....R-1090	AC-45F	.023	14	.018	.....	2B	CP	(2)	F	.008	.012	Cap	6	10	1½	½ to ½	10
.....R-1091	AC-45F	.023	14	.018	.....	7B	CP	(2)	F	.008	.012	Cap	6	10	1½	½ to ½	10
.....R-1103	AC-F45	.030	14	.018	.....	8B	CP	(2)	R	.005	.007	Cap	8	2 to 4	½ to 1½	½ to ½	11
.....R-1104	AC-F45	.030	14	.018	.....	8B	CP	(2)	R	.005	.007	Cap	10	2 to 4	½ to 1½	½ to ½	11
RILEY—Britain.....1.5	Ch-N5	.025	14	.015	60	7C	CC	(2)	F	.015H	.015H	CP	5	3	2 to 5	0	9	
.....2.8	Ch-N5	.025	14	.015	35	4½B	CC	(1)	F	.012H	.012H	CP	5	3	2 to 5	0	9	
ROLLS-ROYCE—Britain.....Silver Cloud	Ch-N5	.025	14	.020	44	2B	Fly	(4)	...	.006	.012	Fly	TC	1N to 1½P	0	½ to ½	4½
.....Silver Wraith	Ch-N5	.025	14	.020	44	2B	Fly	(4)	...	.006	.012	Fly	TC	½P to 1½N	0 to 1P	½ to ½	4½
ROVER—Britain.....60	Lo-CLNH	.031	14	.015	80	10B	Fly	(2)	F	.008	.012	Fly	9	2	2	0 to ½	4	
.....75, 90	Lo-CLNH	.031	14	.015	35	10B	Fly	(1)	F	.008	.012	Fly	9	2	2	0 to ½	4	
.....105	Lo-HLN	.031	14	.015	35	3B	Fly	(1)	F	.008	.012	Fly	9	2	2	0 to ½	4	
.....105 3 Litre	Lo-HLN	.031	14	.015	35	3B	Fly	(1)	F	.006	.010	Fly	17½	0 to 1	0 to 2	0 to ½	4	
SAAB—Sweden.....930	Ch-5MJ	.028	18	.014	.....	8B	.....	(5)	R	.....	.....	.....	.....	1½ to 2½	½ to 1	½ to ½	7
SEAT—Spain.....600	Fir-14-12-225	.022	14	.016	30	10B	.....	(2)	F	.030	.030	.....	10	9	1	½ to ½	6°51'
.....Fir-14-12-175	.....	.022	14	.016	30	10B	.....	(2)	F	.030	.030	.....	15	2 to 2½	½ to 1	½ to ½	6°51'
SIMCA—France.....Aronde	Ma-36	.027	14	.047	56	4B	CP	(2)	F	.004C	.006C	Tgh	12	1½ to 2½	1 to 1½	½ to ½	8½	
.....Ariane	Ma-36	.027	14	.047	56	4B	CP	(2)	F	.004C	.006C	Tgh	12	1½ to 2½	1 to 1½	½ to ½	8½	
.....Vedette	AC-45L	.023	14	.015	28	3B	CP	(7)	FR	.011	.011	TG	5	½N to 1½N	1P to 1½P	½ to ½	4½	
SINGER—Britain.....Gazelle Ser. III	Ch-N5	.025	14	.015	9	10B	CP	(2)	F	.012	.014	CC	10	1½ to 3	¾	¾	8½	
SKODA—Czechoslovakia.....Octavia	Pal-195-14	.024	14	.016	16	23B	T-F	(2)	F	.006	.008	T-F	13½	3½	1	½ to ½	8½	
.....Octavia Super	Pal-195-14	.024	14	.016	16	20B	T-F	(2)	F	.006	.008	T-F	13½	3½	1	½ to ½	8½	
.....Felicia	Pal-225-14	.024	14	.016	4	23B	T-F	(2)	F	.006	.008	T-F	29	3½	1	½ to ½	8½	
STANDARD—Britain.....8	Ch-N5	.032	14	.015	110	8B	TCC	(2)	F	.010	.010	TCC	10	1½	2	0 to ½	7	
.....10, Pennant	Ch-N5	.032	14	.015	110	10B	TCC	(2)	F	.010	.010	TCC	10	1½	2	0 to ½	7	
.....Ensign	Ch-L10	.032	14	.015	110	3B	TCC	(2)	F	.010	.010	TCC	12	1½	2	0 to ½	5½	
.....Vanguard III	Ch-L10	.032	14	.015	110	12B	TCC	(2)	F	.010	.010	TCC	12	1½	2	0 to ½	5½	
STEYR—Austria.....2000, 2300 Sport	Bo-W225T7	.035	14	.016	.....	4B	.....	(2)	...	.008	.008	.....	18	2 to 2½	¾ to 1	½ to ½	6°50'
SUNBEAM—Britain.....Rapier Ser. II	Ch-N5	.025	14	.015	90	8B	CP	(2)	F	.012	.014	CC	11	1½	¾	¾ to ¾	5½	
TALBOT—France.....Largo	Ma-CR35	.027	.....	.020	.....	.....	.....	(7)	FR	.028C	.028C	.....	.....	3	10 to 15	12½	.....
TATRA—Czechoslovakia.....603	Pal-175	.020	14	.020	.....	8B	CP	(13)	FL	.006	.006	F-C	8	0	1	½ to ½	8½
TOYOTA—Japan.....Corona ST10	NGK-C50	.027	10	.018	54	7B	CP	(3)	...	.008	.010	CP	8	1	1	½ to ½	7
.....Crown RS20	NGK-BC54E	.032	14	.018	45	8B	Fly	(3)	...	.008	.014	Fly	11	1	1	½ to ½	7
.....Crown Custom RS22L	NGK-B64E	.032	14	.018	45	8B	Fly	(3)	...	.008	.014	Fly	11	1	1	½ to ½	7½
TRIUMPH—Britain.....Sedan	Ch-N5	.032	14	.015	110	10B	TCC	(2)	F	.010	.010	TCC	10	1½	2	0 to ½	7	
.....Sports TR3	Ch-L7	.025	14	.015	110	4B	TCC	(2)	F	.010	.010	TCC	17	0	1½	½ to ½	7	

For abbreviations table see page 82

IMPORTED CAR SERVICE DATA—concluded

MAKE AND MODEL	IGNITION SYSTEM										VALVE TIMING				WHEEL ALIGNMENT			
	Spark Plug		Breaker Point Gap (In.)	Cable Angle (Deg.)	Timing (Deg.)	Timing Mark Location	Firing Order	Location of No. 1 Cylinder	Tapet Clearance		Timing Mark Location	Intake Opens (Deg. B.T.C.)	Caster (Deg.)	Camber (Deg.)	Toe-In (In.)	King Pin Inclination (Deg.)		
	Make and Type	Gap (In.)							Thread Size (Mm.)	Intake (In.)							Exhaust (In.)	
UNICAR—Britain.....T	K-FE80	.018	14	.020	..	.....	....	....	.....	.....	.....	.....	0	1	3/8	3 1/2	
VAUXHALL—Britain...FD, FW	AC-44-SV	.029	14	.020	36	98	Fly	(2)	F	.013	.013	Fly	18 1/2	3/4 P to 1 1/2 P	3/4 P to 1 P	1 1/8 to 1 1/2	4 1/4	
VOLKSWAGEN—Germany.....11, 14	Bo-W225T1	.026	14	.016	42	7 1/2 B	FP	(9)	...	.004C	.004C	FP	2 1/2	2 1/2	3/4	1 1/8 to 1 1/2	4°20'
.....22	Bo-W225T1	.026	14	.016	42	7 1/2 B	FP	(9)	...	.004C	.004C	FP	2 1/2	0	3/4	1 1/8 to 2	4°20'
VOLVO—Sweden.....P44508, P54408	Ch-J6	.030	14	.018	50	48	Fly	(2)	F	.020	.020	....	32	3/4 N to 1 1/2 P	3/4 N to 1 1/2 P	0 to 1/4	5
WOLSELEY—Britain.....1500	Ch-N8	.025	14	.015	60	68	CC	(2)	F	.015H	.015H	CP	5	3	2	0	9	
.....15-50	Ch-N8	.025	14	.015	60	68	CC	(2)	F	.015H	.015H	CP	5	2 1/4	3/4	0	6 1/4	
.....6-90	Ch-N8	.025	14	.015	35	3 1/2 B	CC	(1)	F	.012H	.012H	CP	5	3	1 1/4	0	6	

ABBREVIATIONS

1—1, 5, 3, 6, 2, 4.
2—1, 3, 4, 2.
3—1, 2, 4, 3.
4—1, 4, 2, 6, 3, 5.
5—1, 2, 3.
6—1, 2.
7—1, 5, 4, 8, 6, 3, 7, 2.
8—1, 12, 6, 4, 5, 8, 11, 2, 3, 10, 7, 6.
9—1, 4, 3, 2.
10—1, 4, 3, 6, 5, 2.
11—Or CW175E.
12—.026 for CW175E plugs.
13—1, 3, 6, 2, 7, 8, 4, 5.
14—Front only; rear, 9.

15—Or W225RT27.
16—.037 for W225RT27 plugs.
17—Or W225RT23.
18—Or W260RT20.
19—Or NA12.
20—Or W240T(S).
21—Front only; rear, 1/2 P to 2P.
22—Front only; rear, 1/2.
23—TC with high compression head.
A—After top center.
AC—A.C. Spark Plug Div.
B—Before top center.
Be—Beru.
Bo—Bosch.
C—Cold.
Ca—Camshaft chain.
Cam—Camshaft.

Cap—Camshaft pinion.
CC—Crankshaft and camshaft sprockets.
CD—Crankshaft damper.
Ch—Champion.
CP—Crankshaft pulley.
CS—Camshaft and sprocket.
CT—Crankshaft pulley and timing gear cover.
CV—Cylinder head and vibration damper.
F—Front.
Fa—Fan.
F-C—Flywheel and crankshaft pulley.
FCC—Flywheel and crankshaft and camshaft sprockets.
Fir—Firestone.
FL—Front left.
Fly—Flywheel.

FP—Fan drive pulley.
FR—Front right.
H—Hol.
K—KLG.
Lo—Lodge.
Ma—Marchal.
Mar—Marcel.
N—Negative.
P—Positive.
R—Rear.
Ri—Right.
TC—Top center.
TCC—Timing chain cover.
T-FC—Timing case cover or flywheel.
TG—Timing gears.
Tgn—Timing gear housing.
VD—Vibration damper.

January, 1959 New Passenger Car Registrations*

STATE	Buick	Cadillac	Chevrolet	Chrysler	De Sota	Dodge	Edsel	Ford	Imperial	Lincoln	Mercury	Oldsmobile	Plymouth	Pontiac	Rambler	Studebaker	All Others	Total
Alabama.....	274	93	1506	35	28	82	42	1407	15	26	158	316	285	285	221	74	466	5315
Alaska.....	8	11	73	4	4	3	3	69	.....	4	13	10	16	9	9	15	56	307
Arizona.....	126	83	898	12	12	64	28	808	10	19	102	207	156	169	111	77	345	3227
Arkansas.....	293	85	1376	31	34	113	49	1385	7	22	158	337	263	272	215	99	294	5023
California.....	2061	1535	11316	441	276	1018	338	10927	192	305	1220	2590	2579	2376	2562	1002	7558	48296
Colorado.....	208	100	1414	42	22	108	36	1110	18	30	137	277	253	289	237	93	318	4692
Connecticut.....	247	174	1350	98	62	141	35	1223	25	43	165	388	509	363	433	178	783	6217
Delaware.....	105	36	438	16	12	49	17	447	8	6	43	102	182	117	109	32	187	1906
District of Columbia.....	57	82	420	18	17	61	11	336	8	11	35	111	168	104	72	47	227	1785
Florida.....	734	720	4572	105	51	213	98	3417	76	130	324	904	732	760	636	232	2562	16266
Georgia.....	462	196	2097	65	45	129	102	2364	22	41	201	552	440	654	305	151	858	8684
Idaho.....	141	64	413	13	21	36	14	406	3	7	58	112	88	132	119	51	149	1827
Illinois.....	1726	954	8259	356	214	667	321	8960	153	250	833	2370	1856	2181	1629	822	1319	30899
Indiana.....	780	356	3179	112	113	330	134	2871	54	61	334	949	797	825	660	649	704	12910
Iowa.....	426	127	2041	90	55	214	70	1981	20	24	272	538	450	515	413	167	232	7644
Kansas.....	274	100	1491	29	37	108	34	1114	18	22	120	303	275	302	263	80	302	4872
Kentucky.....	226	77	1178	29	9	119	84	1147	8	15	116	322	262	246	154	51	229	4292
Louisiana.....	359	132	2157	41	36	118	60	2004	16	36	135	487	291	445	201	130	598	7246
Maine.....	65	44	456	18	29	54	20	420	3	6	39	56	121	128	112	39	218	1840
Maryland.....	294	132	1929	94	57	262	40	1650	22	44	175	430	599	384	368	169	602	7271
Massachusetts.....	273	188	1116	67	77	128	37	1115	20	45	127	449	460	250	388	118	513	5371
Michigan.....	887	666	4228	166	172	407	197	3915	54	121	537	1077	1004	1075	708	247	853	16304
Minnesota.....	305	96	1478	54	38	133	44	1273	23	27	194	475	292	324	371	79	212	5418
Mississippi.....	184	85	823	32	11	39	21	737	4	4	67	181	168	167	100	53	225	2871
Missouri.....	539	210	3134	63	71	256	76	2469	14	48	201	719	724	590	444	197	682	10439
Montana.....	137	48	344	19	12	36	21	396	9	5	68	133	83	82	111	50	97	1651
Nebraska.....	307	97	1421	41	32	111	47	1448	14	19	173	292	306	287	256	100	155	5116
Nevada.....	20	15	95	3	6	13	4	69	2	4	14	33	23	22	10	12	73	418
New Hampshire.....	40	36	283	11	10	34	18	281	4	10	32	66	83	76	86	29	162	1271
New Jersey.....	709	639	3574	349	223	496	129	3169	104	132	445	1105	1560	1109	943	394	1712	16792
New Mexico.....	102	40	627	13	13	54	27	468	4	12	65	134	86	105	85	50	197	2082
New York.....	1655	1204	7053	489	334	877	210	5554	168	286	610	2878	2518	2202	1760	800	2913	31641
North Carolina.....	523	201	2146	64	62	198	82	2653	13	26	236	524	718	551	282	154	777	9212
North Dakota.....	132	38	747	32	24	71	28	673	11	10	70	168	145	113	109	23	99	2943
Ohio.....	1523	788	6333	291	263	750	256	5842	86	153	715	1795	1582	1677	1326	663	1691	25822
Oklahoma.....	209	72	1215	24	26	67	9	1095	8	7	97	272	200	260	138	82	205	4006
Oregon.....	235	99	1264	39	39	60	50	1043	17	33	143	257	251	336	409	179	600	5054
Pennsylvania.....	1237	711	6275	397	313	760	221	4924	113	126	750	1549	2149	1562	1482	712	1527	24088
Rhode Island.....	111	70	521	28	18	63	9	547	10	26	67	142	174	87	146	36	243	2298
South Carolina.....	304	80	1150	31	20	106	43	1295	10	24	124	273	277	279	182	137	575	4910
South Dakota.....	207	39	751	31	21	94	46	769	5	10	86	259	187	166	145	47	92	2955
Tennessee.....	417	155	1973	44	44	153	101	1954	17	36	192	490	395	435	278	146	385	7187
Texas.....	1162	561	6703	143	97	354	136	6013	60	87	476	1656	89	1338	662	370	1781	22586
Utah.....	95	33	345	18	17	20	285	7	12	61	108	71	103	87	23	136	1441	
Vermont.....	28	12	180	2	6	27	7	149	2	2	24	19	58	29	33	13	76	665
Virginia.....	446	231	2254	107	87	234	66	2501	29	60	245	513	750	624	374	169	962	9682
Washington.....	265	102	1218	52	31	101	55	1096	18	33	160	267	261	286	385	130	716	5148
West Virginia.....	172	70	748	38	33	91	36	742	7	15	93	209	215	210	111	69	198	3057
Wisconsin.....	463	213	1876	81	46	224	82	1674	18	37	188	493	414	499	730	127	277	7512
Wyoming.....	75	29	303	11	5	16	15	206	4	11	38	81	48	61	67	20	73	1063
Total.....January, 1959	21625	11911	106543	4389	3275	9882	3610	96501	1533	2529	11136	28108	26533	25499	21037	9387	38044	419512
Total.....January, 1958	27309	10862	104108	6270	5050	11668	5046	79804	1997	2906	10966	29689	32916	21653	8660	3523	19813	382212

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SMALL GASOLINE ENGINES ... 1959

MAKE AND MODEL	Designed for Use	Number of Cycles	ENGINE										GOV-ERNOR	Type	Ignition System Type	FUEL SYSTEM		Fuel Used	Starting Method
			Type	No. of Cylinders	Bore and Stroke (in.)	Total Displacement (Cu. In.)	Compression Ratio (to 1)	Valve Location	Horsepower		Torque—Lb. Ft. at RPM	Weight (Lb.)				Type	Make		
									Rated at RPM	Continuous at RPM									
Briggs & Stratton	60100 60300, 60400 60500 60700 61100 61300, 61400 61500 61700 80100 80300, 80400 80500 80700 81100 81300, 81400 81500 81700 9 14 141300 141700 143300 143700 19 23A	Ha, AC, Lm General Purpose Lm, Tll, In Lm, Tll, In General Purpose General Purpose Lm, Tll, In Lm, Tll, In General Purpose General Purpose Lm, Tll, In Lm, Tll, In General Purpose Lm, Tll, In Lm, Tll, In General Purpose General Purpose General Purpose General Purpose General Purpose General Purpose General Purpose General Purpose	4 4																

1959... SMALL GASOLINE ENGINES

MAKE AND MODEL	Designed for Use	Number of Cycles	ENGINE										GOV-ERNOR		FUEL SYSTEM		Starting Method		
			Type	No. of Cylinders	Bore and Stroke (In.)	Total Displacement (Cu. In.)	Compression Ratio (to 1)	Valve Location	Horsepower		Torque—Lb. Ft. at RPM	Weight (Lb.)	Used	Type	Ignition System Type	FUEL SYSTEM			
									Rated at RPM	Continuous at RPM						Type		Make	Fuel Used
AIR COOLED—continued																			
JLO-Hercules	L101	General Purpose	2	1	1.97x1.07	6.00	6.80	L	4.30-4500		5.14-3500	18.4	Y	Mag	Car	Bing	G	Rb	
	L151	General Purpose	2	1	2.32x2.13	9.00	6.80	L	6.00-4500		7.96-3500	25.4	Y	Mag	Car	Bing	G	Rb	
	L250	General Purpose	2	1	2.72x2.60	15.00	6.80	L	7.80-4000		12.00-2500	57.33	Y	Mag	Car		G	Pro	
	L375*	General Purpose	2	1	3.15x2.91	22.70	6.90	L	13.50-3600		22.00-2500	70.56	Y	Mag	Car		G	Pro	
Kohler	K91	General Purpose	4	Hor	2 1/2x2	8.86	6.80	L	4.00-4000	3.06-3600	5.20-3600	40	Y	Fb	Mag	Car	Cart	G, K	
	K161	General Purpose	4	Hor	2 1/2x2 1/2	16.22	6.20	L	7.00-3600	5.50-3600	10.20-3600	67	Y	Fb	BM	Car	Cart	G, K	
	K241	General Purpose	4	Hor	3 3/4x2 1/2	23.80	6.50	L	9.60-3600	6.75-3000	16.70-2200	107	Y	Fb	Mag	Car	Cart	G	
	K331	General Purpose	4	Hor	3 3/4x3 1/2	33.60	6.20	L	12.50-3200	10.50-3200	20.40-3200	175	Y	Fb	BM	Car	Cart	G	
	K860	General Purpose	4	Op	2 3 3/4x3 1/2	67.20	6.20	L	24.00-3200	20.40-3200	39.20-3200	230	Y	Fb	Mag	Car	CZ	G	
Lauson	H20, HR20	GS, AC, Ha, Af	4	Hor	2 1/2x1 1/2	6.21	6.00	L	2.00-3600	1.80-3600	2.90-3600	24	Y	Pn	Mag	FC	Wal	G	
	H25, HR25	GS, AC, Ha, Af	4	Hor	2 1/2x1 1/2	7.35	6.00	L	2.50-3600	2.00-3600		24	Y	Pn	Mag	FC	Wal	G	
	H30, HB30, HR30	GS, AC, Ha, Af, Pu	4	Hor	2 1/2x1 1/2	7.61	6.20	L	3.00-3600	2.40-3600	4.40-3600	24	Y	Pn	Mag	FC	Wal	G	
	H35, HB35, HR35	GS, AC, Ha, Af, Pu	4	Hor	2 1/2x2	11.04	6.60	L	3.50-3600	2.80-3600	5.50-3600	40 1/2	Y	Pn	Mag	FC	Wal	G	
	H45, HB45, HR45	GS, AC, Ha, Af, Pu	4	Hor	2 1/2x2 1/2	11.04	6.60	L	4.50-3600	3.60-3600	6.50-3600	40 1/2	Y	Pn	Mag	FC	Wal	G	
	H55, HB55, HR55	GS, AC, Ha, Af, Pu	4	Hor	2 1/2x2 1/2	13.53	6.60	L	5.50-3600	4.40-3600	8.10-3600	40 1/2	Y	Pn	Mag	FC	Wal	G	
	V22	Af, Lm	4	Ver	2 1/2x1 1/2	6.21	5.80	L	2.20-3600	1.76-3600	3.50-3600	21 1/2	Y	Pn	Mag	FC	Wal	G	
	V25	Af, Lm	4	Ver	2 1/2x1 1/2	7.35	6.00	L	2.50-3600	2.00-3600		23 1/2	Y	Pn	Mag	FC	Wal	G	
	V27	Af, Lm	4	Ver	2 1/2x1 1/2	7.35	6.00	L	2.75-3600	2.16-3600	4.10-3600	21 1/2	Y	Pn	Mag	FC	Wal	G	
	V30	Af, Lm	4	Ver	2 1/2x1 1/2	7.61	6.20	L	3.00-3600	2.40-3600	4.40-3600	21 1/2	Y	Pn	Mag	FC	Wal	G	
	V35, VC35, VX35	Ha, Lm	4	Ver	2 1/2x2	11.04	6.60	L	3.50-3600	2.80-3600	5.50-3600	36 1/2	Y	Pn	Mag	FC	Wal	G	
	V40, VC40, VX40	Af, Lm	4	Ver	2 1/2x2 1/2	11.04	6.60	L	4.00-3600	3.20-3600	5.80-3600	36 1/2	Y	Pn	Mag	FC	Wal	G	
	V45, VC45, VX45		4	Ver	2 1/2x2 1/2	11.04	6.60	L	4.50-3600	3.60-3600	6.50-3600	36 1/2	Y	Pn	Mag	FC	Wal	G	
	V55, VC55, VX55		4	Ver	2 1/2x2 1/2	13.53	6.60	L	5.50-3600	4.40-3600	8.10-3600	36 1/2	Y	Pn	Mag	FC	Wal	G	
McCulloch	MAC35, MAC35A	Chain Saws	2	Ver	1 1/2x1 1/2	3.30	7.00	Ro				16 1/2	N	Mag	Car	Own	G	BP	
	39	Chain Saws	2	Ver	1 1/2x1 1/2	3.30	7.00	Ro				16 1/2	N	Mag	Car	Own	G	BP	
	D-44	Chain Saws	2	Hor	1 2x1 1/2	4.30	7.60	Ro				21	Y	AV	Mag	Car	Own	G	BP
	49	Chain Saws	2	Ver	1 2x1 1/2	4.70	7.00	Ro				21	Y	AV	Mag	Car	Own	G	BP
	MAC-D30	Chain Saws	2	Hor	1 2 1/2x1 1/2	4.90	7.20	Ro				18 1/2	N	Mag	Car	Own	G	BP	
	D-36	Chain Saws	2	Hor	1 2 1/2x1 1/2	4.90	7.20	Ro				18 1/2	N	Mag	Car	Own	G	BP	
	Super 55	Chain Saws	2	Hor	1 2 1/2x1 1/2	4.90	8.00	Ro				24	Y	AV	Mag	Car	Own	G	BP
	Super 44	Chain Saws	2	Hor	1 2 1/2x1 1/2	4.90	8.00	Ro				21	Y	AV	Mag	Car	Own	G	BP
	Super 44A	Chain Saws	2	Hor	1 2 1/2x1 1/2	5.32	8.00	Ro				21	Y	AV	Mag	Car	Own	G	BP
	Super 55A	Chain Saws	2	Hor	1 2 1/2x1 1/2	5.32	8.00	Ro				21	Y	AV	Mag	Car	Own	G	BP
	Super 77	Chain Saws	2	Hor	1 2 1/2x1 1/2	7.35	6.80	Ro				32	Y	Ce	Mag	Car	Own	G	BP
	99	Chain Saws	2	Hor	1 2 1/2x2	9.90	6.50	Ro				51	Y	RV	Mag	Car	Own	G	BP
Mustang	Standard	Motorcycles	4	Ver	1 2 1/2x3	19.50	6.00	L	9.50-5000	9.50-5000			N	Mag	Car	Am	G	Pe	
	Special	Motorcycles	4	Ver	1 2 1/2x3	19.50	7.00	L	10.50-5000	10.50-5000			N	Mag	Car	Am	G	Pe	
Onan	AK	Generator Sets	4	Ver	1 2 1/2x2 1/2	12.20	5.50	L	3.75-3600	2.82-3600	5.80-1800	74	Y	(d)	Mag	Car	Cart	G	HE
	AJ	GS, RF, Af	4	Ver	1 2 1/2x2 1/2	14.90	6.25	L	5.50-3600	3.86-3600	8.00-2100	150	Y	(d)	BM	Car	Cart	G	HE
	LK	GS, RF	4	Ver	1 3 1/2x3	25.00	5.50	L	5.10-1800	4.34-1800	14.90-1800	114	Y	(d)	BM	Car	Cart	G	HE
	ACK	Generator Sets	4	Op	2 3 1/2x2 1/2	38.80	6.25	L	13.80-3600	10.00-3600	20.00-3600	125	Y	Me	Mag	Car	Till	G	Hc
	VB	Generator Sets	4	Ver	2 3 1/2x2 1/2	45.70	6.25	L	19.25-3600	16.20-3600	29.80-2800	140	Y	Me	Mag	Car	MS	G	HE
	CDK	General Purpose	4	Op	2 3 1/2x3	50.00	5.50	L	13.60-3000	12.90-2700	27.80-1800	148	Y	(d)	BM	Car	MS	G	HE
	CW	Generator Sets	4	Op	2 4x3 1/2	88.00	5.50	L	20.00-1800	16.50-1800	58.30-1800	420	Y	Fb	Mag	Car	Zen	G	HE
Power Products	AH47-1072	General Purpose	2	Hor	1 2x1 1/2	4.70	5.50	N	2.20-3600			16	Y	Fb	Mag	FC	Till	G	Rc
	AH47-1118	GP, Cs	2	Hor	1 2x1 1/2	4.70	5.50	N	3.25-4800	3.25-4800	3.40-4800	12 1/2	N	Y	Mag	Car	Till	GO	Rc
	AH81-40001	General Purpose	2	Hor	1 2 1/2x1 1/2	7.98	5.50	N	5.50-5000			13 1/2	Y	Fb	Mag	Car	Till	GO	Rc
	AV47	GP, Cs	2	Ver	1 2x1 1/2	4.70	5.50	N	2.20-3600			16	Y	Fb	Mag	Car	Till	GO	Rc
West Bend	390	General Purpose	2	(k)	1 1 1/2x1 1/2	3.90		Re	1.50-3600	1.50-3600	2.30-3600	14 1/2	Y	Av	Mag	Car	Till	G	RA
	510	General Purpose	2	(k)	1 2x1 1/2	5.10		Re	3.00-4500	3.00-4500	3.60-4500	13 1/2	N	Mag	Car	Till	G	Rc	
	645	General Purpose	2	(k)	1 2 1/2x1 1/2	6.45		Re	4.00-4500	4.00-4500	4.80-4500	13 1/2	N	Mag	Car	Till	G	Rc	
	700	General Purpose	2	(k)	1 2 1/2x1 1/2	7.00		Re	5.00-5500	5.00-5500	5.17-5500	13 1/2	N	Mag	Car	Till	G	Rc	
Wisconsin	ACN	General Purpose	4	Ver	1 2 1/2x2 1/2	14.88	5.88	L	6.00-3600	4.80-3600	9.50-2800	76	Y	Fb	Mag	Car	SZ	G	BP
	BKN	General Purpose	4	Ver	1 2 1/2x2 1/2	17.80	5.88	L	7.00-3600	5.60-3600	12.00-2800	76	Y	Fb	Mag	Car	SZ	G	BP
	AENL	General Purpose	4	Ver	1 3x3 1/2	23.00	6.21	L	9.20-3600	7.40-3600	16.50-2300	110	Y	Fb	Mag	Car	Zen	G	BP
	AGN	General Purpose	4	Ver	1 3 1/2x4	38.50	6.12	L	12.50-3200	10.00-3200	27.00-1900	180	Y	Fb	Mag	Car	Zen	G	Hc
	TH	General Purpose	4	Ver	2 3 1/2x3 1/2	53.90	6.25	L	16.40-2600	13.10-2600	34.00-2000	220	Y	Fb	Mag	Car	Zen	G	Hc
	THD	General Purpose	4	Ver	2 3 1/2x3 1/2	53.90	6.25	L	18.00-3200	14.40-3200	34.00-2000	220	Y	Fb	Mag	Car	Zen	G	Hc
WATER COOLED																			
Kohler	L160	Generator Sets	4	Hor	1 2 1/2x2 1/2	16.22	6.00	L	6.60-3600	5.50-3600	9.70-3600	100	Y	Fb	Mag	Car	Cart	G	BP

ABBREVIATIONS

*—Also available in 2 and 3 cylinders.
 **—21 1/4 lbs. for 6.22 model; 19 1/2 lbs. for EZ-6 model.
 ***—Generator set use, 110 lbs.; pump use, 85 lbs.
 (b)—Inclined 20° up from horizontal.
 (d)—Flyweights on camshaft.
 (g)—Generator set use, 68 lbs.; pump use, 45 lbs.
 (h)—Generator set use, 135 lbs.; pump use, 95 lbs.
 (k)—Available with vertical or horizontal shaft.
 Af—Auxiliary farm implement equipment.
 AC—Air compressor.
 Am—Amal.
 Av—Air vane.
 BM—Battery and magneto.

BP—Belt or pulley.
 Bpe—Belt, pulley or electric.
 BR—Belt, pulley or recoil.
 Car—Carburetor.
 Cart—Carter Carburetor Corp.
 Ce—Centrifugal.
 Cs—Chain saws.
 CZ—Carter, Tillotson or Zenith.
 CZZ—Carter or Zenith.
 Ele—Electric.
 ER—Electric or rope.
 Fb—Flyball.
 FC—Float feed carburetor.
 G—Gasoline.
 GO—Gasoline and oil mix.
 GP—General purpose.
 GS—Generator sets.
 Ha—Home appliances.
 Hbp—Hand crank, belt or pulley.
 Hc—Hand crank.

HE—Hand crank or electric.
 Hor—Horizontal.
 Hr—Hand crank or recoil.
 I—Valves in head.
 In—Industrial.
 L—"L" head, valves at side.
 Lm—Lawn mowers.
 MA—Mechanical or air vane.
 Mag—Magneto.
 Me—Mechanical.
 Mo—Mobile equipment.
 MS—Marvel-Schebler Carburetor Div.
 N—No or none.
 Op—Opposed.
 Opt—Optional.
 Pe—Pedal.
 Pre—Pulley, rewinding, or electric.
 Pm—Pneumatic and mechanical.
 Pn—Pneumatic.
 Pu—Pumps.

R—Rope.
 RA—Rope or automatic rewinding rope.
 Rc—Recoil.
 Re—Reed valves.
 RF—Refrigeration equipment.
 Ro—Rotary.
 RR—Recoil or rope.
 RRe—Recoil, rope or electric.
 RV—Rotary valve.
 SC—Suction feed.
 SZ—Marvel-Schebler or Zenith.
 TB—Tillotson and Brown.
 Till—Tillotson.
 Tll—Tillotson.
 Vee—"V" type engine.
 Ver—Vertical.
 Wal—Walbro.
 Y—Yes.
 Zen—Zenith Carburetor Div.

Small Gasoline Engine Service Data

MAKE AND MODEL	IGNITION SYSTEM				VALVE SYSTEM								FUEL SYSTEM		PISTON		RINGS		Pistons Removed From Connecting Rod Bearing Type			
	Breaker Point Gap (In.)	Spark Plug	Make and Model	Size (Mm.)	Cap (In.)	Tapet Clearance		Seat Angle	Valve Timing				Timing Mark Location	Fuel Pump Make	Fuel Screen Location	Carburetor Float Level Height (In.)	Compression			Oil		
						Intake (In.)	Exhaust (In.)		Intake (Deg.)	Exhaust (Deg.)	In-take Exhaust											
											Opens (Deg. B.T.C.)	Closes (Deg. A.B.C.)					Opens (Deg. B.B.C.)	Closes (Deg. A.T.C.)				
BRIGGS & STRATTON																						
8B, 8B	.020	Ch-J8		14	.025	.006	.010	45	45					CC	Own	FTV	PCB	2	1	1	A	C
8B-H, 8B-H	.020	Ch-J8		14	.025	.006	.010	45	45					CC	Own	FTV	PCB	2	1	1	A	C
8B-HS, 8B-S	.020	Ch-J8		14	.025	.006	.010	45	45					CC	Own	FTV	PCB	2	1	1	A	C
9	.020	Ch-J8		14	.025	.006	.015	45	45	24	47	57	14	CC	Own	FF	PCB	2	1	1	A	C
14, 19	.020	Ch-J8		14	.025	.006	.015	45	45	27	50	60	17	CC	Own	FF	PCB	2	1	1	A	C
23A	.020	Ch-J8		14	.025	.006	.018	45	45	28	51	61	18	CC	Own	FF	PCB	2	1	1	A	C
60100, 60500, 61100, 61900, 80100, 80500, 81100, 81500	.020	Ch-J8		14	.025	.006	.010	45	45	27	50	60	17	CC	N			2	1	1	A	C
80300, 80400, 80700, 81300, 81400, 81700, 80300, 80400, 80700, 81300, 81400, 81700	.020	Ch-J8		14	.025	.006	.010	45	45	27	50	60	17	CC	Own			2	1	1	A	C
141300, 143300, 141700, 143700	.018	Ch-J8		14	.025	.006	.010	45	45	27	50	60	17	CC	N			2	1	1	A	C
CLINTON																						
100, A2100, VS2100, AUS3100	.020	Ch-H10		14	.025	.010	.010	44	44					CCr		(1)	2	1	1	A	C	
VS100, VS3100	.019	Ch-H10		14	.025	.010	.010	44	44					CCr		(1)	2	1	1	A	C	
3100	.020	Ch-H10		14	.025	.010	.010	44	44					CCr		(2)	2	1	1	A	C	
VS200, AVS400, BV5400, VS400	.020	Ch-H11		14	.031											(1)	2	1	1	A	C	
A400	.020	Ch-H11		14	.031											(2)	2	1	1	A	C	
D700, 900	.020	Ch-J8		14	.025	.010	.010	44	44					CCr		(1)	2	1	1	A	C	
AUS1000, VS1000, VS1100	.020	Ch-J8		14	.025	.010	.010	44	44					CCr			2	1	1	A	C	
A1200	.020	Ch-J8		14	.025	.010	.010	44	44					CCr			.180	2	1	1	A	C
AVS1100	.020	Ch-J8		14	.025	.010	.010	44	44					CCr			.180	2	1	1	A	C
VS1200	.020	Ch-J8		14	.025	.010	.010	44	44					CCr	Own		.180	2	1	1	A	C
1600	.029	Ch-H10		14	.025	.012	.012	44	44					CCr			.180	2	1	1	A	C
2500, A2500	.029	Ch-H10		14	.025	.012	.012	44	44					CCr			.180	2	1	1	A	C
100 Series, VS2100 Series, VS3100 Series	.020	Ch-H10		14	.025	.010	.010	44	44	21							.120	2	1	1	A	C
VS200 Series, VS400 Series	.020	Ch-H11J		14	.025					27							.120	2	1	1	A	C
D700 Series, 1200 Series	.020	Ch-J8		14	.025	.010	.010	44	44	21							.180	2	1	1	A	C
900 Series	.020	Ch-H10		14	.025	.010	.010	44	44	21							.180	2	1	1	A	C
V1100 Series, VS4100 Series	.029	Ch-H10		14	.025	.011	.011	44	44	20							.180	2	1	1	A	C
1600, 2500 Series, 2700 Series	.029	Ch-H10		14	.025	.011	.011	44	44	20							.180	2	1	1	A	C
CONTINENTAL																						
AUT0, AUT0R	.019	Ch or AL		14	.025	.014	.014	45	45	20	50	50	8					2	1	1	B	
AUT, AUTB, AUTR, AD7, AW7, AUB, AUBB, AUBR, AD8, AW8, AUBS, AUBSR, AD8S, AW8S	.019	Ch or AL		14	.025	.014	.014	45	45					N	N	FTV		2	1	1	B	
CUSHMAN																						
M6, M7, M8, M9	.020	Ch-F14Y		18	.025	.015	.015	45	45	20	60	63	17	N	GSB	1 1/4	2	1	1	A	In	
GLADDEN																						
40, 50, 75	.020	Ch-J8		14	.025	.008	.010	45	45	15	45	45	15	N	N	FF		2	1	1	A	In
GRAVELY																						
L	.020	AL-TT10		3/8	.033	.008	.012	45	45	TC	60	60	20	ICG		GT	1 1/2	2	1	1	B	In
HOMELITE																						
4-20	.015	Ch-HO6A		14	.025									T-B	TP		2	1	1	B	RB	
6-22, E26	.015	Ch-HO6A		14	.025									T-B	TP		2	1	1	B	RB	
5-30N, 7-29	.020	Ch-HO3		14	.025									T-B	TP		2	1	1	B	RB	
36	.020	Ch		14	.025									Own			2	1	1	B	BN	
37	.020	Ch		14	.025									Own			2	1	1	B	BN	
15	.015	Ch		14	.025									Own			2	1	1	B	BN	
8, 20	.020	Ch		14	.025									N			2	1	1	B	BN	
35	.020	Ch		14	.025									N			2	1	1	B	BN	
23	.020	Ch		14	.025									N			2	1	1	B	BN	
24	.020	Ch		14	.025									N			2	1	1	B	BN	
4-20	.015	Ch-HO6A		14	.025									Br	TP		2	1	1	B	RB	
7-19, 7-21	.015	Ch-HO6A		14	.025									T-B	TP		2	1	1	B	RB	
5-30N, 8-29	.020	Ch-HO3		14	.025									T-B	TP		2	1	1	B	RB	
36	.020	Ch		14	.025									T-B	TP		2	1	1	B	BN	
37	.020	Ch		14	.025									T-B	TP		2	1	1	B	BN	
Zip	.015	Ch-J6		14	.025									T-B	TP		2	1	1	B	RB	
JACOBSEN																						
J100	.020	Ch-J11J		14	.025										TVC		3	1	1	A	FB	
J125	.020	Ch-J11J		14	.025										TVC		3	1	1	A	FB	
J175	.020	Ch-J11J		14	.025										TVC		3	1	1	A	FB	
J175V	.020	Ch-J11J		14	.025										TVC		3	1	1	A	FB	
J225	.020	Ch-J11J		14	.025										TVC		3	1	1	A	FB	
J100	.020	Ch-UJ12		14	.025										TVC		3	1	1	A	FB	
J125	.020	Ch-J11J		14	.025										TVC		3	1	1	A	FB	
J175	.020	Ch-UJ12		14	.025										TVC		2	1	1	A	FB	
J175V	.020	Ch-J8J		14	.025										TVC		2	1	1	A	FB	
J225	.020	Ch-J11J		14	.025										TVC		3	1	1	A	FB	
JLO-HERCULES																						
L101	.014	Ber-175-18U3			.017									Bi								
L151	.014	Ber-175-18U3			.018									Bi								
L250, L375	.014	Ber-225-18U3			.018																	
L2-375, L3-375	.014	Ber-175-18U3			.018																	
KOHLER																						
K90	.020	Ch or AC		14	.025	.006	.012	44	44	16	36	36	14	Fly	N	GT	2	1	1	A	C	
K160	.020	Ch or AC		14	.025	.006	.017	44	44	16	36	40	12	Fly	SC	SC	2	1	1	A	C	
L160	.020	Ch or AC		14	.025	.006	.017	44	44	16	36	40	12	Fly	SC	SC	2	1	1	A	C	
K330	.020	Ch or AC		14	.025	.008	.020	44	44	20	52	52	20	Fly	SC	SC	2	1	1	A	In	

For abbreviations table see page 86

Small Gasoline Engine Service Data

MAKE AND MODEL	IGNITION SYSTEM				VALVE SYSTEM										FUEL SYSTEM		PISTON		RINGS		Connecting Rod Bearing Type		
	Breaker Point Gap (In.)	Spark Plug	Make and Model	Size (Mm.)	Gap (In.)	Tapet Clearance		Seat Angle		Valve Timing				Timing Mark Location	Fuel Pump Make	Fuel Screen Location	Carburetor Float Level Height (In.)	Compression		Oil			
						Intake (In.)	Exhaust (In.)	Intake (Deg.)	Exhaust (Deg.)	In-take		Ex-haust						Number	Size (In.)	Number		Size (In.)	
										Opens (Deg. B.T.C.)	Closes (Deg. A.B.C.)	Opens (Deg. B.B.C.)	Closes (Deg. A.T.C.)										
Kahler Continued																							
K860.....1958	.015	Ch or AC	14	.025	.008	.015	44	44	20	52	52	20	Fly	SC	FP	.....	2	1	1	1	A	In
K91.....1959	.020	Ch or AC	14	.025	.006	.012	44	44	16	36	38	14	Fly	N	GT	.....	2	1	1	1	A	C
K161.....1959	.020	Ch or AC	14	.025	.006	.017	44	44	16	36	40	12	Fly	SC	TP	.....	2	1	1	1	A	C
L160.....1959	.020	Ch or AC	14	.025	.006	.012	44	44	16	36	40	12	Fly	SC	GT	.....	2	1	1	1	A	C
K241.....1959	.020	Ch-H8	14	.025	.010	.020	44	44 1/2	16	36	40	12	Fly	SC	BI	GT	2	1	1	1	A	C
K331.....1959	.020	Ch or AC	14	.025	.008	.020	44	44	20	52	52	20	Fly	SC	TP	.....	2	1	1	1	A	In
K662.....1959	.015	Ch or AC	14	.025	.008	.015	44	44	20	52	52	20	Fly	SC	FP	.....	2	1	1	1	A	In
LAUSON																							
H20, HR20, H25, HB25, HR25, H30, HB30, HR30, V20, V25.....1958	.020	Ch-JB	14	.030	.010	.010	45	45	16	48	48	10	CG	N	GT	.160	2	1	1	1	A	C	
H35, HB35, HR35, H40, HB40, HR40, V35, VC35, V40, VC40.....1958	.020	Ch-JB	14	.030	.010	.010	45	45	16	48	48	10	CG	N	GT	.160	2	1	1	1	A	C	
P25.....1958	.020	Ch	14	.030	.010	.010	45	45	10	46	50	10	CG	N	GT	.160	2	1	1	1	A	C	
V30.....1958	.020	Ch-JB	14	.030	.010	.010	45	45	16	48	48	10	CG	N	GT	.160	2	1	1	1	A	C	
H20, HR20, H25, HB25, HR25, H30, HB30, HR30, V25, V27.....1959	.020	Ch-JB	14	.030	.010	.010	45	45	16	48	48	10	CG	N	GT	.160	2	1	1	1	A	C	
H35, HB35, HR35, H45, HB45, HR45, H55, HB55, HR55, V22, V30, V35, VC35, VX35, V40, VC40, VX40, V45, VC45, VX45, V55, VC55, VX55.....1959	.020	Ch-JB	14	.030	.010	.010	45	45	16	48	48	10	CG	N	GT	.160	2	1	1	1	A	C	
MC CULLOCH																							
MAC 35.....1958	.018	Ch-JB	14	.025	.....	.....	.....	.....	56	.....	76	.....	Fly	Own	GT	.....	1	1	1	1	B	NR
39.....1958	.018	Ch-JB	14	.025	.....	.....	.....	.....	56	.....	76	.....	Fly	Own	GT	.....	1	1	1	1	B	NR
D44.....1958	.018	Ch-JB	14	.025	.....	.....	.....	.....	59	.....	79	.....	Fly	Own	FP	.....	1	1	1	1	AB	NR
49, 77.....1958	.018	Ch-JB	14	.025	.....	.....	.....	.....	59	.....	79	.....	Fly	Own	PC	.....	1	1	1	1	AB	NR
Super 44, Super 55.....1958	.018	Ch-JB	14	.025	.....	.....	.....	.....	59	.....	79	.....	Fly	Own	FP	.....	1	1	1	1	AB	NR
99.....1958	.018	Ch-JB	14	.025	.....	.....	.....	.....	59	.....	79	.....	Fly	N	Car	.....	1	1	1	1	AB	NR
MAC D30, D36, Super 44A, Super 55A.....1959	.018	Ch-JB	14	.025	.....	.....	.....	.....	56	.....	76	.....	Fly	Own	TL	.....	2	1	1	1	AB	NR
MAC 35.....1959	.018	Ch-JB	14	.025	.....	.....	.....	.....	56	.....	76	.....	Fly	Own	GT	.....	2	1	1	1	B	NR
MAC 35A.....1959	.018	Ch-JB	14	.025	.....	.....	.....	.....	56	.....	76	.....	Fly	Own	GT	.....	2	1	1	1	B	NR
39.....1959	.018	Ch-JB	14	.025	.....	.....	.....	.....	56	.....	76	.....	Fly	Own	GT	.....	2	1	1	1	B	NR
D44.....1959	.018	Ch-JB	14	.025	.....	.....	.....	.....	59	.....	79	.....	Fly	Own	FP	.....	2	1	1	1	AB	NR
49, 77.....1959	.018	Ch-JB	14	.025	.....	.....	.....	.....	59	.....	79	.....	Fly	Own	PC	.....	2	1	1	1	AB	NR
Super 44, Super 55.....1959	.018	Ch-JB	14	.025	.....	.....	.....	.....	59	.....	79	.....	Fly	Own	FP	.....	2	1	1	1	AB	NR
99.....1959	.018	Ch-JB	14	.025	.....	.....	.....	.....	59	.....	79	.....	Fly	N	Car	.....	2	1	1	1	AB	NR
MUSTANG																							
Standard.....1959	.020	Ch-JB	14	.025	.008	.010	30	45	15	45	45	15	N	N	FF	.....	2	1	1	1	A	In
Special.....1959	.020	Ch-JB	14	.025	.008	.010	30	45	26	66	66	26	N	N	FF	.....	2	1	1	1	A	In
ONAN																							
AK.....1958-59	.020	Ch-H9	14	.025	.014	.014	45	45	10	58	56	22	TGC	Own	FF	.....	2	1	1	1	A	C
AJ.....1958-59	.022	Ch-H9	14	.025	.011	.011	45	45	10	58	46	22	TGC	Own	FF	.....	2	1	1	1	A	C
LK.....1958-59	.020	Ch-H9	14	.025	.011	.011	45	45	10	46	46	10	TGC	Own	FF	.....	2	1	1	1	A	C
ACK.....1958-59	.020	Ch-H9	14	.035	.007	.007	44	44	22	58	46	10	TGC	Own	GT	.....	2	1	1	1	A	In
VB.....1958-59	.015	Ch-H9	14	.030	.008H	.008H	45	45	15	63	61	17	Fly	Own	GT	.....	2	1	1	1	A	In
CCK.....1958-59	.020	Ch-H9	14	.025	.015	.015	45	45	10	46	46	10	CGC	Own	FF	.....	2	1	1	1	A	Ci
CW.....1958-59	.020	Ch-6MJ	14	.025	.012	.012	45	45	10	58	58	10	Fly	Own	FF	.....	2	1	1	1	A	In
POWER PRODUCTS																							
AH47, AH65, AH81.....1958	.020	Ch-JB	14	.025	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	GT	.....	2	1	1	1	B	NB
V47.....1958	.020	Ch-JB	14	.025	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	GT	.....	2	1	1	1	B	NB
AH47.....1959	.020	Ch-JB	14	.025	.....	.....	.....	.....	.....	.....	.....	.....	CS	.....	GT	.....	2	1	1	1	B	NB
AH81.....1959	.020	Ch-JB	14	.025	.....	.....	.....	.....	.....	.....	.....	.....	CS	.....	GT	.....	2	1	1	1	B	NB
V47.....1959	.020	Ch-JB	14	.025	.....	.....	.....	.....	.....	.....	.....	.....	CS	.....	GT	.....	2	1	1	1	B	NB
WEST BEND																							
390 Series.....1958-59	.020	Ch-H12J	14	.040	.....	.....	.....	.....	.....	.....	.....	.....	.....	N	GT	.....	2	1	1	1	B	C
510 Series, 645 Series.....1958-59	.020	Ch-H12J	14	.040	.....	.....	.....	.....	.....	.....	.....	.....	.....	Til	Tcr	.....	2	1	1	1	B	RB
700 Series.....1959	.020	Ch-HBJ	14	.030	.....	.....	.....	.....	.....	.....	.....	.....	.....	Til	Tcr	.....	2	1	1	1	B	RB
WISCONSIN																							
ACN.....1958-59	.015	Ch or AC	18	.030	.012	.012	45	45	5	50	45	10	CGM	.....	ST	.....	2	1	1	1	A	C
BKN.....1958-59	.015	Ch or AC	18	.030	.012	.012	45	45	5	50	45	10	CGM	.....	ST	.....	2	1	1	1	A	C
AENL.....1958-59	.015	Ch or AC	18	.030	.012	.012	45	45	20	60	60	20	FFS	.....	ST	.....	2	1	1	1	A	C
AGN.....1958-59	.015	Ch or AC	18	.030	.006	.016	45	45	20	60	60	20	FFS	.....	ST	.....	2	1	1	1	A	C
TH, THD.....1958-59	.015	Ch or AC	18	.030	.008	.016	45	45	25	75	115	35	FFS	B-A	SP	.....	3	1	1	1	A	C

ABBREVIATIONS

- ↑—Up to 14023, .110 to .130; after 14023, .150 to .170; Carter, 3/16.
- ↑—Up to 14023, .110 to .130; after 14023, .150 to .170.
- ↑—Or Ch-H11J.
- ↑—From top of float to edge of bowl cover, without gasket.
- ↑—Or Auto-Lite.
- ↑—Or Bosch M175T1.
- ↑—With magneto ignition only 5 with starting generator or battery ignition, .026.
- ↑—Or Bosch M225P11S.
- ↑—With magneto ignition only; with battery ignition, .016.
- A—Above.

- AB—Above or below.
- AC—A.C. Spark Plug Div.
- AL—Electric Auto-Lite Co.
- B—Below.
- B-A—Blackstone or A.C.
- Ber—Beru.
- Bi—Bing.
- BI—Blackstone.
- BN—Ball and needle bearings.
- Br—Brown.
- C—Cast.
- Car—Carburetor.
- CC—Crankshaft and camgear.
- CG—Camshaft and crankshaft.
- CG—Cam gear.
- CGC—Camshaft gear cover.
- CGM—Camshaft gear and magneto gear faces.

- Ch—Champion Spark Plug Co.
- CI—Cast or Insert.
- CS—Crankcase and stator plate.
- FB—Forged bronze.
- FF—Fuel filter.
- FFS—Face of magneto gear tooth, flywheel.
- In—Inlet and shroud.
- Fly—Flywheel.
- FP—Fuel pump.
- FTV—Fuel tank valve.
- GSB—Gas tank and sediment bowl.
- GT—Gasoline tank.
- H—Hot.
- ICG—Inlet and cam gears.
- In—Insert.
- N—None.
- NB—Needle bearings.
- NF—No float.

- PC—Fuel pump and carburetor.
- PCB—Float parallel to carburetor upper body.
- RB—Roller bearings.
- RC—Roller and needle bearings.
- SN—Stan Test Corp.
- SP—Fuel strainer attached to pump.
- ST—Strainer below fuel tank.
- T-B—Tillotson or Brown.
- TC—Top center.
- Tcr—Fuel tank and carburetor.
- TGC—Timing gear cover.
- Til—Tillotson Mfg. Co.
- TL—Fuel tank and line.
- TP—Fuel tank and fuel pump.
- TVC—Tank valve and carburetor float cover.

since 1956...

nearly **70%**
of America's most expensive
and most popular cars* were
initially equipped with Expander-type
wheel cylinder cups!

since 1956...

MILLIONS of
"E" Series HRC* CUPS
WITH EXPANDERS have been
used as replacements on America's
most expensive and most popular cars!*

THEY SEAL BETTER!



Once you use EIS "E" Series HRC* CUPS with Expanders
in your wheel cylinder work, you'll never settle for less!

EIS HRC* CUPS are safety-engineered of a new, heat-resisting
compound to withstand extreme operating temperatures.
And, for extra insurance, Expanders have been added to the cups
for correct balance and equalized wall tension! THAT'S what
makes them work better!

You'll find EIS HRC* CUPS with Expanders IN ALL
EIS Wheel Cylinders and EIS Repair Kits. Most important,
they cost no more!

(except certain special types)

* HRC — Heat-Resisting Compound



Speed your wheel cylinder service
work with this handy A222 "E"
Series Cup and Expander Assort-
ment! (Illustrated)

★ CADILLAC • PLYMOUTH
IMPERIAL • PONTIAC
OLDSMOBILE • BUICK
DODGE • CHEVROLET
CHRYSLER • DESOTO

FREE. Colorful window streamers
and counter cards! They tell and
sell the dramatic "E" Series
HRC* CUP and Expander story
to your customers!



Ask your EIS Distributor or write for Catalog.

EIS AUTOMOTIVE CORP., MIDDLETOWN, CONN.



William J. Warak, Ridge Body & Fender Shop, Evanston, Ill., says:

"Trying to find our shop is pretty confusing, even for Evanston natives. But most prospects don't have to ask us for directions when they want to locate us, because . . .



"...they find us through our Yellow Pages advertising, and the map in our ad literally directs them to our door. If it weren't for our map in the Yellow Pages, we would have lost our shirts when we started our business!"



No matter how good *your* business location is, the best location for your advertising is the Yellow Pages . . . because your prospects turn to this handy buying guide round the clock, round the year! So . . . map out your Yellow Pages program *now*. For the helpful assistance, call the Yellow Pages man at the local Bell telephone office.

**RIDGE
BODY & FENDER
SHOP**

NORTH
WEST - EAST
SOUTH

GREENWOOD

(SOUTH)
WYRENS
SERIAL
WIDEMASTER

- BODY and FENDER WORK
- PAINTING (Exclusively Matched)
- GLASS INSTALLED
- WELDING

UNiversity 4-4474

1326 SHERBORN

12-15 CALLS A WEEK come in to the Ridge Body & Fender Shop through this 1/2 column ad (reduced).

Tune-up Specialist...

Continued from page 43

ventory to back up his ads, thus he is equipped to handle any car that comes in. By using a cutting torch and special tools, Peck installs a muffler in 15 minutes.

Peck's display advertisement in a metropolitan daily costs him \$28.00 for two insertions during the week.

"Three extra muffler sales during the week," Peck explained, "pays for my advertisement. And I've done better than that in a single day." Peck is averaging installing 70 new mufflers a month.

However, Peck seldom settles for a muffler sale alone. While one of his mechanics is busy with the muffler job, another pulls a wheel to inspect the brakes.

"Out of every 10 muffler sales," Peck said, "we get two brake jobs. Thirty per cent of all cars we inspect need brake work. Maybe, we don't get to do the brake job right now. Either the customer doesn't have the ready cash, or he is in too big a hurry. So, in cases like that, we book the brake work ahead."

Brake jobs average out at \$45.00 which includes a complete overhaul and wheel pack. There is a \$10.00 labor charge for re-lining; turning the drum is a plus charge.

In talking to the customer, Peck leads up to inquiring about the customer's engine performance. (Jim Peck still is the tune-up mechanic.)

The customer usually has some complaint. Maybe it's over using too much gas, or the engine skips at high speed. Further talk discloses that the customer has paid to have the fault corrected, but it amounted to money wasted.

This is Peck's cue to offer to locate the trouble with his scope—at no charge. When Peck wheels up his testing equipment

(Continued on page 94)

Nothing builds business like **AWHERENESS**—and nothing builds **AWHERENESS** like the Yellow Pages—the buying guide that tells 9 out of 10 people **WHERE** to find what they want to buy.

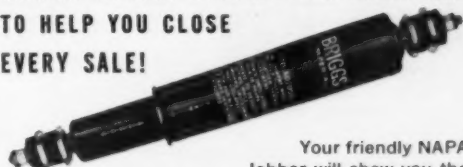
If you like to
TALK "MONEY"
you ought to
TALK "BRIGGS"



Like all other working parts, shock absorbers do wear out. They need to be replaced regularly. But, unlike motor parts and other complicated, hard-to-get-at-jobs, today's direct-acting shocks can be inspected in a matter of minutes and replaced in short order—without special tools or equipment.

To get into the highly profitable shock business today, all you need is a grease pit or rack, a helping hand from your friendly NAPA Jobber, and easy salesmanship supplied by BRIGGS. Get the story today . . . half the cars and light trucks need new shock absorbers. You can replace them in an hour or less at \$15 profit. That's a *good hourly wage rate!*

**BRIGGS BUILDS SHOCKS FOR EVERY CAR
TO HELP YOU CLOSE
EVERY SALE!**



Your friendly NAPA Jobber will show you the talking points on the Imperial (Adjustable); Standard (Regular Duty); Brigadier (Heavy Duty). And the Briggs sales helps: window streamers, how-to-sell booklet, enclosure, and the NAPA Parade of Parts advertising in the Saturday Evening Post.

**Speed Up Shock Absorber Replacement
with the BRIGGS NUT CRACKER**

Nuts frozen by rust and corrosion come off in seconds. Saves time and work and helps you make more money faster. Available from your NAPA Jobber . . . a good man to know.



BRIGGS

Join the Parade of Profits
... cash in on the
NAPA Parade of Parts in

SHOCK ABSORBERS

The Briggs Shock Absorber Co., Cleveland 15, Ohio



You protect brake systems— when you refill



Wagner Lockheed HEAVY DUTY BRAKE FLUID surpasses SAE specification 70R1

This popular product not only surpasses the 70R1 specification established by the Society of Automotive Engineers, but also conforms to Federal specifications.

It definitely is a heavy-duty fluid—yet is moderately priced. Performance proves it to be the best fluid in its price range.

Chemically balanced formula makes this product an all-season fluid that stands up under high operating temperatures, yet functions in sub-zero weather.

Packaged in 12 oz., quart, gallon, 5, 30 and 54 gallon containers.

Wagner Lockheed SUPER HEAVY DUTY BRAKE FLUID is the very finest on the market

Tests prove that there's none better—none safer... It surpasses S.A.E. specifications 70R1 and 70R3, and conforms to Federal specifications.

This truly great brake fluid has correct chemical balance, and maintains its superior characteristics under the most severe operating conditions.

Recommended for use in all heavy duty trucks, also for modern high-horsepower passenger cars.

Available in 12 oz., quart, gallon, 5, 30 and 54 gallon containers.



LOCKHEED BRAKE PARTS, FLUID, EXCHANGE SHOES and LINING • AIR HORNS • AIR BRAKES • TACHOGRAPHS

- and lives of customers - - with **Wagner[®] Lockheed**

Your customers have confidence in your judgment. Be safe—by standardizing on genuine Wagner Lockheed Hydraulic Brake Fluid. It's America's leading top-quality brand of Brake Fluid—and has been for many years. You'll protect brake systems—and lives of customers—when you refill with this time-proven product.

You have a choice between Wagner Lockheed Heavy Duty and Wagner Lockheed 21B *Super* Heavy Duty. Both have correct chemical balance to maintain high temperature characteristics, and function safely in sub-zero operating conditions.

Balanced formula provides proper lubrication for all parts of brake system . . . Absorbs moisture so that metal parts will not rust or corrode . . . Won't cause deterioration of rubber parts—won't evaporate readily. Meets all state requirements.

USE of WAGNER FLUID-BAL makes brake fluid service a profitable one-man job

Every time you have a brake or lubrication job you have an excellent opportunity to check the brake fluid in the master cylinder. If the old fluid is dirty—the system should be drained, flushed, and then refilled with fresh Wagner Lockheed Brake Fluid.

For best results—use a Wagner Fluid-Bal, the Brake Bleeder and Fluid Dispenser with positive diaphragm separation of compressed air and brake fluid. This diaphragm separation assures brake fluid free of air bubbles, because fluid and compressed air in the Fluid-Bal are kept separate.

For details—consult your nearest supplier of Wagner Lockheed Brake Fluid, Brake Parts, Power Brake Repair Kits, Brake Lining and Exchange Brake Shoes.



WF59-1



ELECTRIC MOTORS • TRANSFORMERS • INDUSTRIAL BRAKES

Wagner Electric Corporation

6498 PLYMOUTH AVENUE, ST. LOUIS 14, MO., U. S. A.
(Branches in principal cities in U.S. and in Canada)

Please send us Bulletin HU-411 on Hydraulic Brake Servicing. We understand that there is no charge or obligation.

NAME _____

FIRM NAME _____

ADDRESS _____

CITY & STATE _____



B&D Polisher accessories are profit makers



BONNETS & PADS

Every job goes faster when you use the right tool . . . and the accessories built for that tool.

Start with a Black & Decker Heavy-Duty Polisher then add a genuine Vitri-Buff Bonnet—slips on in a twink—gives your customer's car the new-car look that puts a gleam in his eye—profits in your pocket.



POLISHING WAX



POLISHOP CART

For rubbing down "orange peel" in lacquer finishes use a B&D Pile Fabric or Felt Rubbing Pad—designed for the job.

Put 'em all together in your Polishop and you're completely equipped for Polishing Profits. See your Jobber—he's stocked with a complete B&D Accessory line to give you real service!

INSIST ON THE BEST

Black & Decker®

ACCESSORIES DESIGNED FOR THE TOOL



Aerial view of New Daytona International Speedway. (Kelsey photo)

Daytona "500" Features Close Finish

LEE Petty won the biggest and most exciting race of his career recently. He nosed out Johnnie Beauchamp at the finish line of the 500-mile International Sweepstake at Daytona Beach. Both cars streaked across the finish line almost simultaneously. This caused a sixty-one hour delay before the judges could decide who was out front. Both cars were clocked in at identical times. Average speed ran 135.521 mph for the 500 miles. Only an ex-

haustive study of the films could answer the question of who won.

The champ, Lee Petty, drove a 1959 Olds. The runner-up, Johnnie Beauchamp, piloted a 1959 T-Bird. Petty started in 15th position. He gradually worked his way up to the front. During the 165th lap he duelled for the lead with Beauchamp. Both men were determined to finish first and in a million-to-one shot almost did. Other leaders in this exciting, never to be forgotten race were
(Continued on page 114)

The four smiling gentlemen shown at right are, left to right: Ed Otto, vice president of NASCAR, Cannon Ball Baker, Bill France, president of NASCAR and Jack Montgomery, Motor Age. Scene: Daytona "500."



Let us show you how to make TOP PROFITS

(START IMMEDIATELY)

IN THE CAR POLISHING BUSINESS!



Thousands just like you now make \$100—\$500 extra a month! (Polishing 10 to 48 cars)

Yes, men just like you—service station operators, car wash owners . . . even repair shops—are cashing in every day on top-profit power polishing. Men in every part of the country are pocketing—daily—profits they never thought possible; profits they never before attained with any other service.

Charge as much as \$20
for 2—3 hours polishing!

Imagine a service that can bring you a gross as high as \$720 a month. A service that everyone wants and needs. A service that builds other business—gasoline, engine-work, tires. That service is auto power polishing. You make a profit—a big profit on every power polish job and gain new business in every other department as well!

**START NOW ON YOUR WAY TO TOP PROFITS
YOUR INVESTMENT AS LOW AS 20¢ A DAY!**

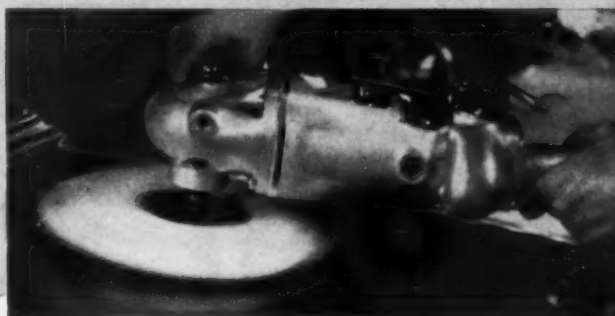
YOU GET A

*Better
Value*

FROM

Black & Decker®

Quality Electric Tools



Here's all you need to
start making top profits!

- **A bay**—possibly now used for car wash.
- **An employee** devoting his time to polishing work.
- **A Black & Decker Polisher**—an investment of as little as \$5.96 a month!
- **Active business solicitation**—you have to be "in" the business to really make the big profits!

Compare profits for yourself! Your B&D Polisher can give you as much as *three* times more profit than other equipment in your shop; can actually pay for itself in as short a time as one week. Imagine making as much as \$11.25 on every job you do—clear profit!



POLISHES 48 cars a week! Baltimore man averages \$7 profit per car—takes 2½ hours total! You can do as well. Write today!



MAKES \$45 a day extra! From coast-to-coast men like this West Coast dealer are making this much and more in power polishing!

THE BLACK & DECKER MFG. CO.
Dept. 5104, Towson 4, Md.

- ☐ I want "in" on this top-profit business.
Give me more information on power polishing.
☐ Send information on tools checked below.

Name.....Title.....

Company.....

Address.....

City.....Zone.....State.....



☐ Drills



☐ Impact Wrenches



☐ Vibro-Centric Systems



☐ Belt Sanders

Circle 359 on Inquiry Card, facing 3rd Cover



Tune-up Specialist Continued from page 88

the average customer is unable to mask his amazement over finding all this modern gear in a small—3 bay—independent garage.

Without any false moves, Peck, with the scope, finds what's causing the engine to lag behind its peak performance.

Convinced Peck knows what he is doing, the motorist tells him to go ahead—which amounts to a tune-up that averages out at \$35.00.

"With the scope," said Peck, "I'm able to run down faulty batteries, generators, starters, bad plugs, bad battery cables,

wires that are shorting out. Sales and labor comes as a consequence."

Peck does an appreciable amount of carburetor work. To facilitate carburetor overhauls, Peck uses a 3 compartment wash tank, bought from a hotel and restaurant supply company. A 20 gallon, electric heated tank supplies him with boiling water for rinsing off carburetor parts.

"I wouldn't think of having a garage without a supply of boiling wash water," said Peck.

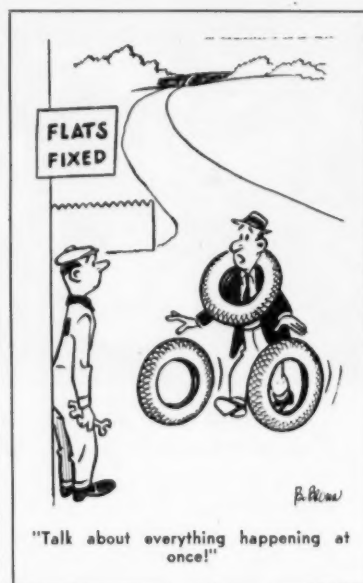
Peck averages 200 major jobs a month. He has two full time



AERO-SEAL JET Clamps hang on so tightly that no amount of vibration can shake them loose. Exclusive patented feature permits quick installation with just a few turns of the precision worm drive screw. And they can be removed in a jiffy. AERO-SEALS will last for years and are re-usable. Bands and housings are of 302 - 18 - 8 stainless steel. All stainless also available. They won't pinch or damage hose. Forget cut-rate "look-alikes." Genuine AERO-SEALS sell faster — and satisfy. No extra price for Jets. AERO-SEAL REGULARS if you prefer.

Aero-Seal JET
QUICK ATTACH HOSE CLAMPS

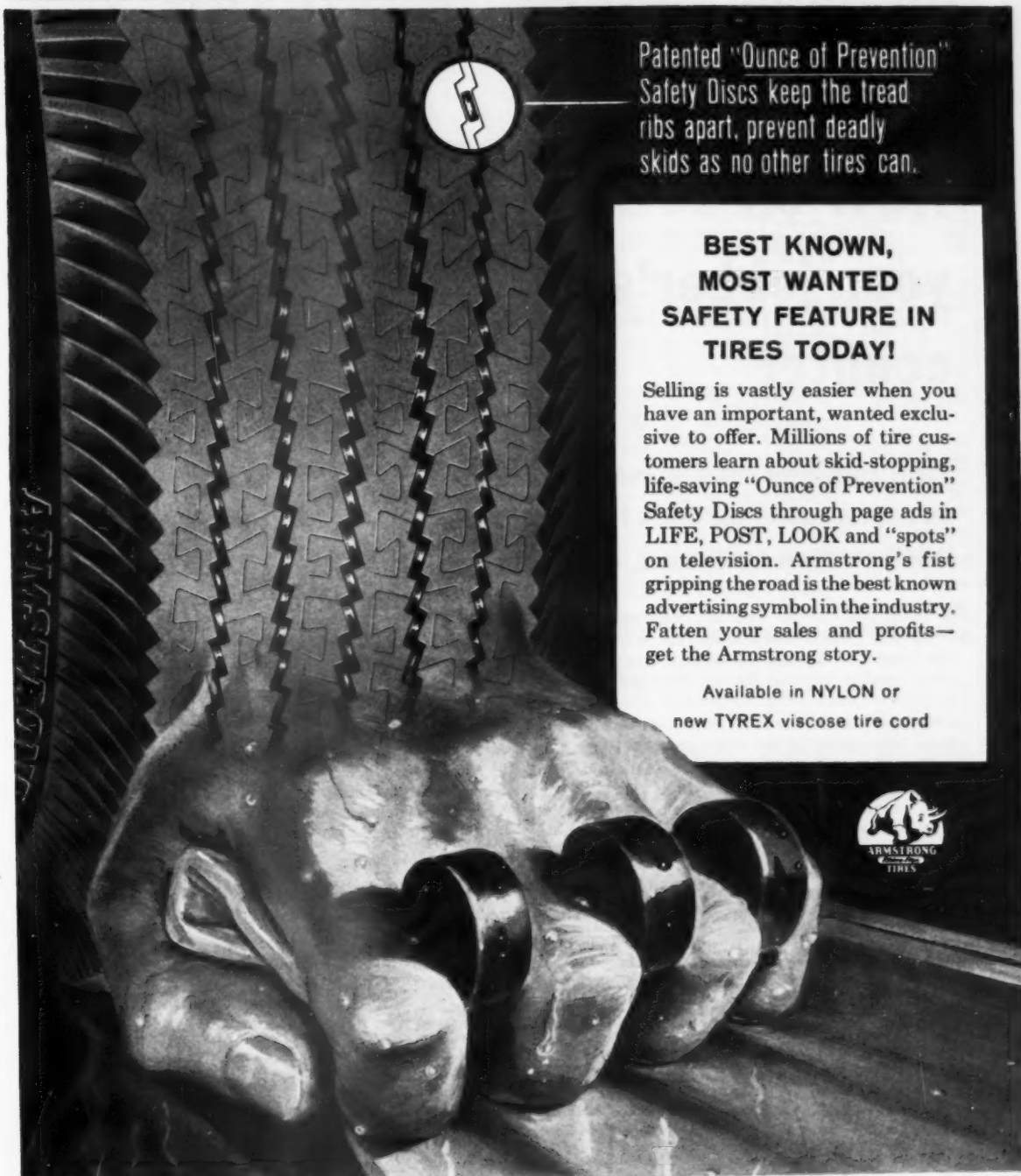
BREEZE CORPORATIONS, INC., 700 LIBERTY AVENUE, UNION, N. J.



mechanics—fully schooled and trained in every phase of the automotive work.

"This is an era," Peck concluded, "where the average customer judges a shop by the equipment it has. Part of the customers agreeing to have their work done at a certain place is strictly psychological. However, the customers are not going to be satisfied with anything but top work. They will not excuse come-backs, after being convinced that modern testing equipment locates and pinpoints their troubles. Learning to use the equipment is the serviceman's responsibility."

ONLY ARMSTRONG GIVES YOU SAFETY DISC GRIP TO SELL!




Patented "Ounce of Prevention"
Safety Discs keep the tread
ribs apart, prevent deadly
skids as no other tires can.

**BEST KNOWN,
MOST WANTED
SAFETY FEATURE IN
TIRES TODAY!**

Selling is vastly easier when you have an important, wanted exclusive to offer. Millions of tire customers learn about skid-stopping, life-saving "Ounce of Prevention" Safety Discs through page ads in LIFE, POST, LOOK and "spots" on television. Armstrong's fist gripping the road is the best known advertising symbol in the industry. Fatten your sales and profits—get the Armstrong story.

Available in NYLON or
new TYREX viscose tire cord



ARMSTRONG RUBBER COMPANY • HOME OFFICE, WEST HAVEN, CONNECTICUT

1959 golden anniversary issue

VICTOR OIL SEAL GUIDE

**NOW on
your jobber's
counter**



**Most complete catalog ever published —
on replacement oil seals for cars, trucks,
tractors, road machinery, etc.**

To help you get the right replacement seals for every job, your Victor Jobber has on his counter the biggest (284 pages) catalog of original equipment quality oil seals known. It includes specifications on most 1959 makes and models. 6000 new insertions of manufacturers' parts numbers have been added to the interchange listings.

For easy reference, the new Oil Seal Guide has a 3-way index—

1. alphabetical listing—by makes and models, with specific application information;

2. by sizes and types of standard oil seals available for various shaft diameters (with cork and felt washer data);

3. by numerical (Victor number) listings—for use when you have the number and want dimensions and application.

This new Oil Seal Guide also shows correct procedure for installing oil seals, plus an analysis chart showing causes of oil leaks, and methods of correction.



Condensed edition available from your Victor Jobber

The *Victor Oil Seal List*—condensed from the Oil Seal Guide—with listings for all popular passenger cars, trucks and buses—is available from your Victor Jobber. Keep a copy handy for shop use. Victor Mfg. & Gasket Co., P.O. Box 1333, Chicago 90, Ill. Canadian Plant: St. Thomas, Ont.

VICTOR

Sealing Products Exclusively

GASKETS • OIL SEALS • PACKINGS

The 100% Coverage Line . . . for Cars, Trucks, Tractors, Stationary Engines

*Following are prices at factory for cars with standard equipment as of March 20, 1959
State or local taxes, transportation and finance charges and optional equipment are extra.*

▲ Six cyl. models are \$110 less than the 8 cyl. models.

**McQUAY-
NORRIS**

...makes the most Power-Packed
rings in the world!



**NO NEED TO WORRY ABOUT
QUICK SEATING...**

PROVE IT WITH

CHROME CONTROL

LEAK-PROOF®

PISTON RINGS

The McQuay-Norris special finish assures instant seating of Leak-Proof rings... Chrome-Armored steel rails are pre-lapped for instant peak performance and positive oil control.

**McQUAY-NORRIS MANUFACTURING CO.
ST. LOUIS, TORONTO**



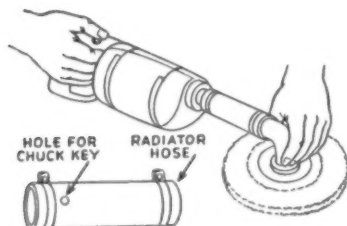
BODY SHOP TIPS

Tips On Keeping Sanding Disks Clean

If a sanding disk becomes coated with paint it is not much good. If you have a torch and hand wire brush handy heat the sanding disk without removing from sander and brush off the paint spots. In recovering badly filled sanding disks heat them lightly over an open flame or torch and buff the paint off with a wire buffer. Also if you do much paint and rust buffing, check your wire buffer. If it feels smooth to the hand in rubbing one way and sharp the other, remove the buffer from arbor and replace it inside out. *H. B. Boyer, Boyer Electric, 2808 W. 54th St., Los Angeles 43, Calif.*

Hose Keeps Buffer Head From Rotating

When using an angle-head buffer on an electric drill, let-



ting the buffer go while the drill was still running made the buffer whip around. As a result,

the angle head hits the left hand with a severe wallop. Safe practice is to slip a piece of radiator hose over the spindle and drill chuck and secure it with two clamps. This keeps the angle head from rotating when you take your hand off it. A hole in the hose permits insertion of the chuck key. *S. Clark, Box 2162, East Bradenton, Fla.*

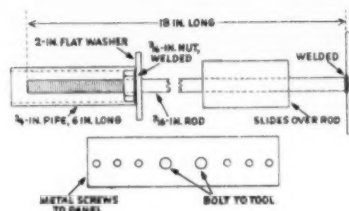
Aluminum Foil Acts As A Reflector

On cars where the parking lights or tail lights are rusted and don't produce enough light, use aluminum foil behind the bulb as a reflector. It works better than paint and will not rust or discolor. *Joseph McMahon, Rd 2, Cambridge Springs, Pa.*

Flashlight Used To Find Holes in Moldings

After the body man uses plastic on a fender or door and covers molding holes it is easy to find exact hole location by placing a flashlight or any light behind work done. These holes are redrilled to fasten molding. Try this and you will find the holes loom up like a TV set. *Harold M. Randall, National City Auto Sales & Service, 54-H. St., N.E. Washington 1, D.C.*

Tool For Taking Dents Out of Panels



Here is a way to take dents out of hard-to-get-at panels. Take some scrap metal, a piece of pipe, a nut and a small piece of steel plate. Weld the rod onto the steel plate and cut threads on the other end of the rod. Cut the pipe to 6 inches in length and weld the $\frac{1}{8}$ inch nut inside the pipe. Then take a 2 inch flat washer and weld it to the nut and pipe for a hand protector. Take a heavy round piece of metal with a hole in it and put it onto the rod to slide up on down to act as a hammer. The tool is made out of $\frac{5}{16}$ inch rod which was tempered. These tools were threaded so I could use two nuts to fasten them to the puller. *Chuck Forman, 7136 N. Amherst, Portland 3, Ore.*

BODY SHOP TIPS are worth

\$7.50

If you've developed an idea that has helped you to do body and fender work or painting better or faster, it may be worth money. Jot down the idea and, if necessary, make a rough sketch. Sometimes a snapshot will help. Just make the description of your BODY SHOP TIP clear, and if it is used, you'll receive a check for \$7.50.

These Genuine Schrader Products are Basic to Best Tire Service

Provide complete tire air service: Replacement valves, caps and cores, rivets, patches—full repair on all tires that come in to you. It's easier, faster, better when you use genuine Schrader Products. Be prepared to handle every job. Stock these basic Schrader Products—your supplier has them all! (And for your customer's safety, always make it a rule to change the valve when mounting new tubeless tires!)

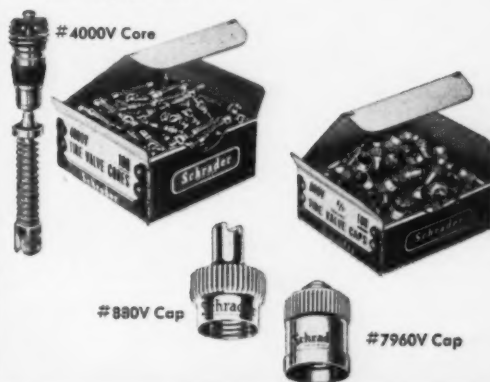
VALVES!

Your tires are now delivered valveless, so don't get caught . . . keep plenty of genuine Schrader valves on hand for every tire situation.



CAPS AND CORES!

A fresh Schrader Cap and Core with every tire change is air-seal-insurance every customer appreciates.



REPAIRS!

Customers want the best, so why not make repairs easy and quick the Schrader way!



This new #5072 complete "FIX FLATS" Repair Kit is Dealer priced complete at only \$15.95 each, U.S.A.



New! ALL SERVICE REPAIR KIT!

Makes it easy and profitable to fix any tire for any vehicle . . . the modern self-vulcanizing way. Will produce \$140 worth of repair business for you! Contains: skiving knife, stitcher, inserting tool, buffing brush, cleaning solution, vulcanizing stock, instruction poster, self-vulcanizing fluid, patches of all types and sizes.

Schrader
a division of SCOVILL

A. SCHRADER'S SON • BROOKLYN 38, N. Y. Division of Scovill Manufacturing Co., Inc.
FIRST NAME IN TIRE VALVES
FOR ORIGINAL EQUIPMENT AND REPLACEMENT

Alaska Volume Shop . . . Continued from page 39

and they need a repair station with personnel who will keep check on their vehicle each time it drives up to the pumps.

It is a common practice among car owners in Alaska to idle their car engines during the major part of the day. This alone has a telling effect on engine perform-

ance. Unique is this fact: Many use their duplicate set of keys, not for the little woman to have, but to lock their car when leaving it unattended for shopping trips or to the movies while the engine runs. That's one way of being sure the car starts when needed.

Care to dress warmly is important for the service man. Without gloves, a warm hand on a piece of metal at 50 degrees below zero can take the skin off in one short instant. A slight spillage of gasoline freezes the skin before it can be wiped. Don't ask to inflate a slightly low tire. You first put the car inside and warm it up, for putting warm air into a frozen tire will undoubtedly freeze the valve open.

Many jokes are made about tires being "flat on one side." It is no joke here. After sitting only a few hours, a car put in motion

New ARMOR-FLEX Protector Mats



You can see the difference in quality
... you will see the difference in sales

A new line of protector mats superior to anything you have seen in the field! These mats are all-new . . . new rubber-plastic composition with *Polene**, new luster-sheen finish, new space-age styling. In 5 solid colors or two-tones. Custom-fitted door-to-door mats, twins or utility mats.

Eye-catching new merchandising material and cartons.

DOAN MANUFACTURING, 1725 London Road,
Cleveland 12, Ohio

* Trademark

Division of Anchor Industries, Inc.



Circle 361 on Inquiry Card, facing 3rd Cover



rides like a lumber wagon. The tires are definitely flat on one side from their short rest on the frozen ground. The shock absorbers and entire undercarriage can fail to function.

A frozen tire brought in for repair must be completely thawed before it can be successfully fixed. The rough streets must be traveled cautiously to insure against breakage to the undercarriage and to the tire
(Continued on page 106)

EASY TO SELL—AND INSTALL!



NO DIP



NO DIVE



NO SWERVE



NO BOUNCE

GOLDEN GLIDE

Shock Absorbers

with AUTOMATIC

3-WAY ACTION

**Puts a
smo-o-o-th surface
on the roughest road!**

Here is a shock absorber that meets any test—automatically! Cobblestone street or paved highway—it's all one to Golden Glide, thanks to Automatic 3-Way Action. Three independent special coil-spring valves enable Golden Glide to *adjust itself* instantly to meet every operating condition—rough, normal or smooth—on all cars, whatever the suspension system. Standard Golden Glide for passenger cars, heavy duty Golden Glide for cars in extra-rugged service and station wagons.

Start now to cash in on the big-profit market for shocks. Check every car on your lift or over your pit. A leaky shock is defective and means a sale is waiting to be made. Installing a new set of Golden Glide shocks is simple—no special tools are needed. Just an hour of your time earns you a profit of more than \$15! Your Golden Glide jobber can give you full details. Call him today.

GOLDEN GLIDE

shock absorbers

THE GOLDEN GLIDE SHOCK ABSORBER CO.

Cleveland 15, Ohio

BEAT

Walker Silencers—Rust Proofed from the Inside Out *last up to 3 times longer!*

Mufflers don't wear out . . . *they rust out from the inside*. Inside rust from corrosive acid condensate is the No. 1 cause of premature muffler failure. So Walker puts extra rust protection where it counts most—on the inside, where rust starts.

Under the most critical of all rust-out conditions . . . normal city driving with a dual exhaust system . . . Walker "Precision Tuned" Silencers provide more complete protection against *inside rust* than any other replacement mufflers.

- **PREMIUM RUST RESISTANT STEEL**—inside on all shells, heads, partitions, and tubes as needed.
- **COMPLETE INSIDE DRAINAGE**—acoustically controlled—prevents collection of moisture and rust-producing acids.
- **ADVANCED VOLUME PASSAGE**—creates a "Dynamic Wiping Action" that picks up moisture . . . carries it through the exit tube.
- **ASBESTOS INSULATED SHELLS**—keep *inside* temperature above the evaporation point—removing a primary cause of inside rust.

DON'T BE FOOLED by how heavy a muffler is . . . or what it looks like on the outside. Walker Silencers do have heavier shells (.051). But it's what's *inside that really counts*. Walker "Precision Tuned" Silencers . . . *rust proofed from the inside out* . . . have been proven by actual on-the-car tests to give up to 300% longer life. Change to Walker "Precision Tuned" Silencers and beat inside rust—where it starts.

WALKER "PRECISION TUNED" SILENCERS

... BEAT INSIDE RUST ... FROM THE INSIDE OUT

Walker Marketing Corporation

A Subsidiary of . .

INSIDE RUST...

No. 1 cause of muffler
failure

INSIDE
...where it starts

WALKER PUTS

RUST PROTECTION ON THE INSIDE WHERE IT COUNTS!

**LAMINATED
SHELLS**

RUST-PROOFED INSIDE

PREMIUM
ZINC
COATED
STEEL

PREMIUM
ZINC
COATED
STEEL

ASBESTOS
INSULATED
SHELLS

RUST-PROOFED
HEADS

COMPLETE
INSIDE
DRAINAGE

DYNAMIC
WIPING
ACTION

RUST-PROOFED
TUBES

RUST-PROOFED
PARTITIONS

RUST-PROOFED
TUNING UNITS

RUST-PROOFED
SHELLS

. . . WALKER MANUFACTURING COMPANY OF WISCONSIN, Racine, Wisconsin

Alaska Volume Shop . . . Continued from page 102

casings. Hitting a curb too hard at 50 below can crack the sidewall of the very finest grade of rubber tires. It is no secret that automobiles take a beating in this kind of frigid temperatures.

Darkness Comes Early

The darkness that comes with winter also adds to the problems of operating a repair and service shop. In midwinter the sun will

rise around 9:50 AM and set about 1:40 PM. As a result stations need more than average illumination. At Gene's Auto Service a great amount of thought was put into their new station with regard to adequate lighting during the long winter months.

Heating Plant Needed

It also takes an efficient heating plant to keep the station and

garage warm with the doors being constantly opened. A car brought in for repair or lubricating must sit a good many hours to thaw out before it can be worked on. This thawing is very important. Using a wrench on such cold metal could result in breaking the part.

Travel Rate Rising

Each year more and more people travel the Alaska highway across Canada into Alaska, to stay or just to visit. But each and every automobile that travels that vast expanse of road usually ends up in Fairbanks, the official end of the Alaska Highway. Gene's Auto Service is located just two blocks from that official termination point.



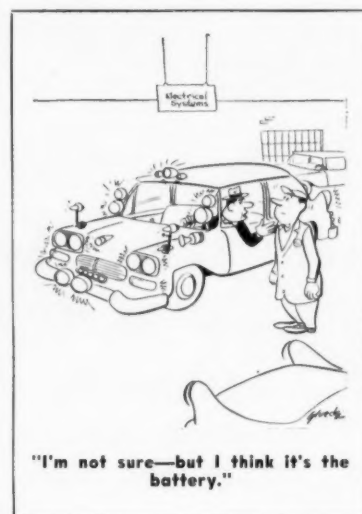
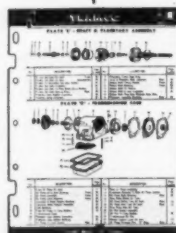
Cataloging to make parts selection easier. There it is right before your very eyes... clear, simple, concise. Saves time... speeds sales and turnover... means more profits for you.

- Exploded sub-assembly views
- Detailed individual parts illustrations
- Complete commodity groupings
- Immediate car, guide reference
- Original Equipment Interchange

The TRAMCO trio: **Ease of Handling, Extensive Coverage, Maximum Profit**... all yours in TRAMCO'S great cataloging, packaging and merchandising service... plus on-the-dot availability through nationwide warehouse facilities.

More and more, America keeps rolling with automatic transmissions. Mechanics and their Jobbers, who are prepared for the great service market looming up, will cash in **BIG**. You're ahead in Sales **Automatically**... with TRAMCO!

TRAMCO Industries Inc.
125 WEST END AVE. • NEW YORK 23, N. Y.



Mr. Immel can tell of many cars pulling into his station and garage, in bad need of attention.

It only takes a moment for him to spot an "over the road" car, as they are dubbed. Punctured gas tanks are not uncommon, broken shock absorbers, tire casings completely abused.

Future Expansion Plans

Expansion in the future is anticipated by Mr. Immel. At present (Continued on page 116)

... AND NOW, TO ALL ITS DEALERS

AMERICAN MOTORS

RECOMMENDS

CHROME CONTROL

LEAK-PROOF

PISTON RINGS



FOR

RAMBLER

REPLACEMENT USE



McQUAY-NORRIS

MAKES THE MOST

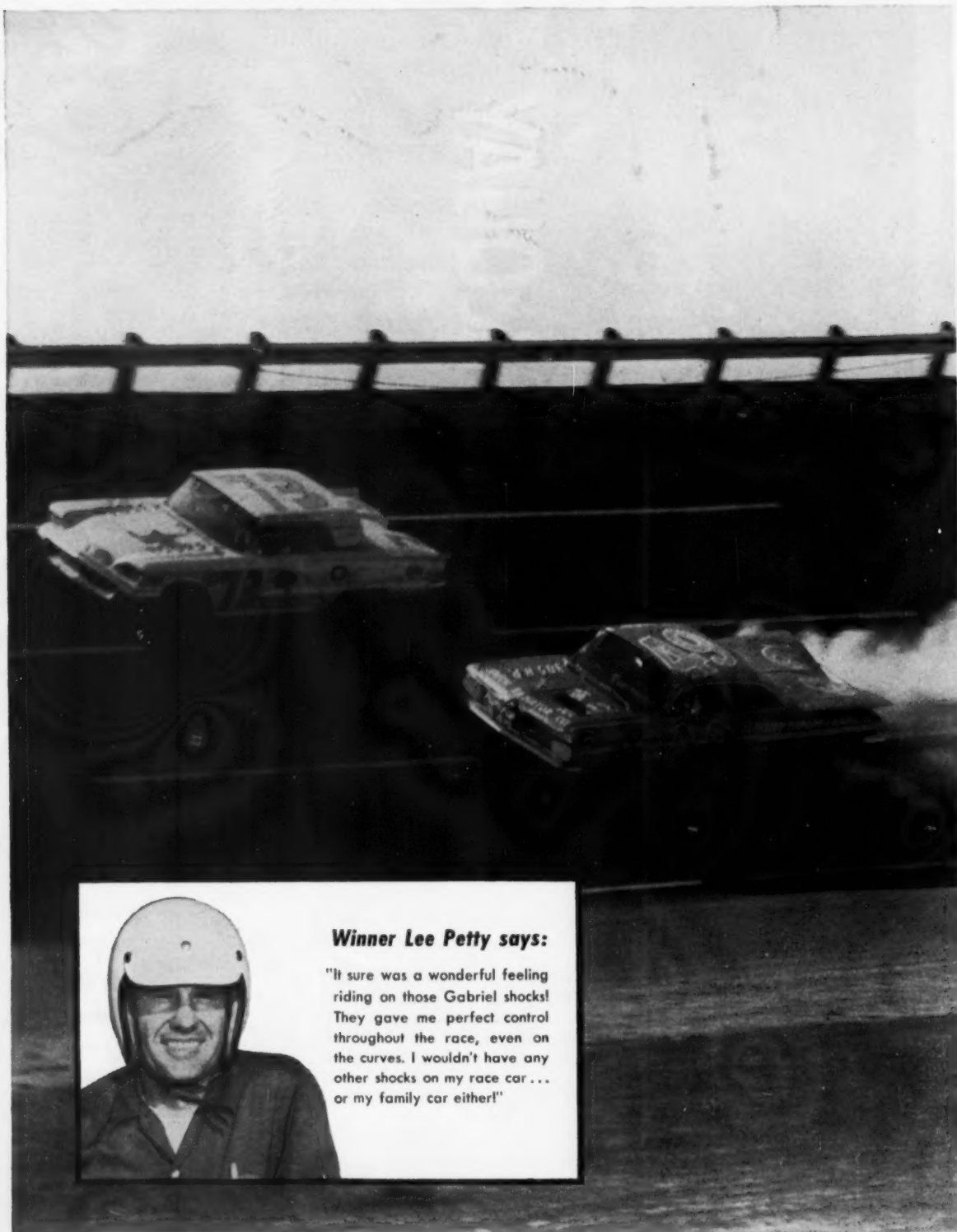
Power-Packed

PISTON RINGS

IN THE WORLD

McQUAY-NORRIS
Manufacturing Co.
St. Louis • Toronto

GABRIEL WINS



Winner Lee Petty says:

"It sure was a wonderful feeling riding on those Gabriel shocks! They gave me perfect control throughout the race, even on the curves. I wouldn't have any other shocks on my race car... or my family car either!"

AT DAYTONA!

First 10 finishers all ride on rugged Gabriel adjustable shocks!

The results are in: cars equipped with Gabriel shock absorbers captured *the first 10 places* in the grueling 500-mile stock car championship race at Daytona!

What a boost for your Gabriel "Lift and Look" plan! For now you can give every motorist new proof that *Gabriel is the most dependable line made.*

And remember: 2 in every 4 cars that come into your place of business need new shock absorbers. That's why our "Lift and Look" plan—as simple and easy as it is for you—can actually bring you a dollar a minute in *extra business!*

The plan, you know, is backed up by the broadest national advertising campaign in our history. And, as a Certified Gabriel Dealer, you get a free sales kit, bulging with display and promotional material, simplified servicing manuals . . . everything you will need to set up an inspection system that will impress the customer and get the business!

Most important, you're able to offer your customers the finest line of shock absorbers made, spearheaded by the incomparable Gabriel Ajustomatic . . . the modern shock that can be adjusted to give each motorist the kind of ride he needs, for the kind of driving he does.

If you're not already in on the "Lift and Look" plan, now's the time! Shock absorbers are just coming into their own . . . and Gabriel is the big news in the shock absorber field. Ask your Gabriel jobber all about it!

The Gabriel Company • Cleveland 15, Ohio

Gabriel
ADJUSTABLE SHOCK ABSORBERS

Special promotions give Texaco Dealers a big edge!

Again this year, Texaco Dealers will hit the jackpot with Texaco's annual Spring advertising-merchandising campaign—one of three giant promotions scheduled for '59. It features a Spring Safe-T check-up, and will influence motorists everywhere to see their Texaco Dealers—giving them a good opportunity to make *permanent* customers.



TRAFFIC-BUILDING RECORD ALBUM OFFER!

This new Benny Goodman album, with 11 great swing tunes, will bring motorists in for a Safe-T check-up and for the coupon that gives them this big \$3.98 value for only \$1.00. A similar offer last year was a big traffic builder for Texaco Dealers everywhere.

"SWING INTO SPRING" TV SPECTACULAR!

Millions saw it, heard it, loved it—Benny Goodman starred with these big names from the entertainment world: Peggy Lee! Ella Fitzgerald! Andre Previn! Lionel Hampton! Shelley Manne! The Hi-Lo's! This '59 "Swing Into Spring" outdid last

year's tremendous success. It was the opening gun of the big Spring campaign—to build station traffic by plugging the special record album offer—to bring car owners in to Texaco Dealers for Spring Safe-T check-ups!

PLUS...A BARRAGE OF TV AND RADIO SPOTS!

In addition to the "Swing Into Spring" send-off, there will be a round-the-clock program of TV and Radio spot announcements. Car owners will see and hear them at home, and hear them while driving. These broadcasts, too, will help to make new customers for Texaco Dealers.



PLUS...ANOTHER DYNAMIC TEXACO "FIRST!" An estimated nearly 12 million readers will see this unique full-color multiple-page ad in the Saturday Evening Post, April 18. It will sell hard for Texaco Dealers, helping to boost station traffic and profits. It is another Texaco first—a big "scoop" in the petroleum industry!



Life, April 20

American Legion, April

Look, April 28

Sunset, April

PLUS...FULL-COLOR 2-PAGE SPREADS IN THESE 4 BIG NATIONAL MAGAZINES! These striking, compelling ads will be seen by an estimated 40 million readers. They go into the homes of car owners—responsible drivers who want good products and efficient service performed with an eye to their safety.

PLUS...BILLBOARDS! Thousands, on highways from coast-to-coast! They'll be seen at the most effective time—when the car owner is behind the wheel!

PLUS...POINT-OF-SALE TRAFFIC BUILDERS! 4 Colorful Window Streamers... selling the campaign and the car owner when he is in the station!

Local Tie-in Advertising—hard-selling newspaper ads and radio spot announcements, for Dealers to run over their names.

PLUS...BIG CASH PRIZES FOR DEALERS! Cash prizes will be awarded Texaco Dealers who do outstanding jobs of getting new customers by tying-in with the big Spring promotion!

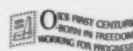


CO-OP ADVERTISING PROGRAM. In addition to these big national promotions, a wide variety of hard-selling newspaper ads, radio and TV spots, available to Texaco Consignees and Distributors. They are *proved* business getters.

6 REASONS WHY YOU CAN MAKE MONEY AS A TEXACO DEALER OR DISTRIBUTOR

1. *The best* petroleum products, known and accepted by car owners nation-wide. Continuous research and development insure that Texaco will always have outstanding products.
2. *The best* point-of-sale and direct mail promotional material to help bring in motorists and bring them back!
3. *The best* and biggest national advertising program . . . constantly selling Texaco Dealers to car owners everywhere.
4. *The best* customer credit card . . . in fact, the only petroleum credit card honored under one sign nation-wide.
5. *The best* retailer policy . . . Texaco helps its Dealers to market nationally-advised and accepted TBA products.
6. *The best* opportunity to cash in on "touring" business . . . because Texaco customers at home like to stop at Texaco stations when on the road. This means you have more than 40,000 other Texaco Dealers helping you.

THE TEXAS COMPANY



A solid future is one of the advantages of being a Texaco Dealer or Distributor. There may be an opportunity for you. Investigate . . . send this coupon to:

SALES MANAGER
THE TEXAS COMPANY
135 E. 42nd STREET
NEW YORK 17, N. Y.

I would like to get complete information about the possibility of teaming up with Texaco as a
☐ Dealer, ☐ Consignee, ☐ Distributor. (Please check).

NAME _____

STREET _____

CITY _____

STATE _____



BATTERY
PROFITS?



BATTERY SALES?

MAN, YOU AIN'T HEARD
NOTHIN' TILL YOU'VE HEARD
THE DELCO DC-7 STORY!

TALK ABOUT PROFITS! The new Delco DC-7 gives you price appeal *plus* substantial profit. The price structure of both the 6-volt and 12-volt DC-7 is set up to give you, the dealer, a more substantial profit than the next five well-known brands of batteries. Don't be misled on battery profits—get the real story on a real profit-maker from your Delco battery distributor.

TALK ABOUT SALES! Almost half the cars on the road come factory equipped with Delco. It's natural for owners to replace with the same

brand. Nearly 25,000,000 replacement batteries are sold each year—and you'll increase your share of sales with the Delco line. Delco is backed with the strongest advertising and sales promotion campaigns in the business. And like all Delco batteries, the DC-7 carries a General Motors warranty that's good all over the United States and Canada. **PRICE, PROFIT and CONSUMER PREFERENCE, YOU'VE GOT 'EM ALL WHEN YOU HANDLE THE DELCO LINE INCLUDING THE NEW DC-7.**

Quality built by Delco-Remy,
distributed nationally through



General Motors **STARTS** with Delco Batteries



Cars 73 and 42 almost tied across the finish line. Lee Petty in car 42 was declared the winner. (Westbrook photo)

4 WAYS FASTER for acrylic repairs!



OPEX® ACRYLIC the system designed with the painter in mind

Losing time and sleep over complicated acrylic refinishing methods? Simplify the job—save time and money—the easier, four-way-faster, OPEX way!

OPEX Acrylic Lacquers are not converted, hard-to-use, production-line finishes, but finishes especially designed for *repaint shop* needs. Just ONE undercoater and ONE thinner to stock for either acrylic or regular lacquer jobs—and better covering, higher gloss and better resistance for the finished job!

Ask for proof—call your Sherwin-Williams OK Automotive Jobber for more facts about the OPEX Acrylic System—ask about seeing an OPEX Acrylic Shop clinic demonstration! The Sherwin-Williams Co., Automotive Division, Cleveland 1, Ohio and Montreal, Canada. (Export Division, Newark 1, N. J.)

1. No delays for special undercoats—OPEX "COMBO" Primer Surfer gives top results with EITHER acrylic or regular lacquer top coats!
2. No mistakes with "wrong" thinners—use OPEX "DUAL" Thinners for best results with acrylic or regular lacquers.
3. Needs FEWER color coats to cover—OPEX ACRYLIC Lacquer colors save spray time—cover better with fewer coats!
4. Saves on rubbing time—OPEX "WHITE LIGHTNING" Rubbing Compound cuts lightning-fast—speeds up burnishing of either acrylic or regular lacquers.



SHERWIN-WILLIAMS
AUTOMOTIVE FINISHES

Circle 363 on Inquiry Card, facing 3rd Cover

Daytona "500" Race

Continued from page 92

Welborn in a 1959 Chevrolet; Pistone driving a 1959 T-Bird; Roberts in a 1959 Pontiac and Smith manning a 1959 Chevrolet.

Out of fifty-nine entries in the race, only thirty-one finished. Breakdown of fuel pumps, overheating, transmission troubles and blown engines contributed to the high mortality of entries. The new high speed track's two and a half mile course presented a challenge to both driver and car. Driving skill and mechanical excellence were needed to complete this gruelling, breath-taking race.



Petty receives prize money from B. K. Christie, a vice president of Champion Spark Plug Co.

Pace car in foreground (1959 Pontiac) is shown leading the cars into the starting line at the recent Daytona "500." Moments later, the race was underway. After five hundred miles of high-speed driving, Lee Petty was declared the winner in an exceptionally close finish.

AVA Gives Award To General Motors

The American Vocational Association recently presented its Award of Merit to General Motors. Citation in part said "in appreciation for interest in and support of vocational education in automobile mechanics."

Andrew D. Althouse, Assistant Director of Vocational Education for Detroit Public Schools, represented AVA in making the presentation. Kenneth A. Meade, director of GM Educational Relations Section, accepted in behalf of GM at a luncheon at GM Technical Center.

"Your concern for the development and improvement of practical education has meant much to the welfare of our nation," Mr. Althouse declared.

The Award of Merit was authorized by AVA at its 52nd Annual Vocational Convention at Buffalo, N.Y., last August. The Award honored not only GM Educational Relations Section but also the vocational educational efforts of GM Service Section, Chevrolet Motor Division, Fisher Body Division, Delco-Remy Division and General Motors Institute.

A farmer's barn had burned down and the agent from the insurance company arrived to discuss the claim. Explaining the policy that covered the structure, he told the farmer that his firm would build another barn of similar size instead of paying the claim in cash. The farmer was furious.

"If that's the way your company does business," he exploded "you can just cancel the insurance policy on my wife!"

Chilton's MOTOR AGE • April 1959



The Big Four Pioneer is scouting for the oldest tire changer still in use for our museum

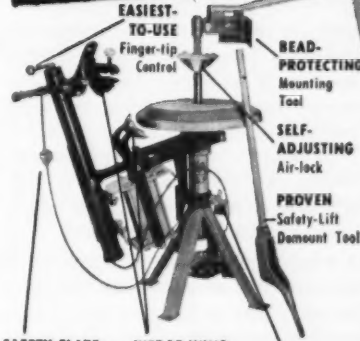


WIN A FLORIDA VACATION for 2
A Delta Airlines Dream Vacation
including new car for you to drive

PLUS A NEW POWAIR TIRE CHANGER!

If you have the oldest Henderson Tire Changer*. A Big Four representative will stop to check the serial number of your tire changer.

YOUR PRIZE—THE PRIZE TIRE CHANGER OF ALL TIME—BIG FOUR HENDERSON P-58B WITH FULL-AIR-POWERED DOUBLE BEAD-BREAKERS



DRI-CLEAN
AIR Filter and Lubricator for trouble-free operation

Five models—from \$129 up
Up to 36 months to pay

U.S. Patents: 2,534,515—2,609,038—2,609,039—2,655,985. Others pending

Circle 364 on Inquiry Card, facing 3rd Cover

You can win, too, if you own another make of tire changer

Since Big Four was first with a tire changer and so as not to penalize owners of other makes, we offer a new P-58B in exchange for the oldest tire changer* other than Big Four.

*Old machine must be complete with mounting and demounting attachments. If you buy a new tire changer during the contest and win, your purchase price for the tire changer will be refunded in full.

West Coast: 8203-S S. Avalon Blvd., L.A. 3, Cal.
Canada Vulcanizer & Equip. Co., London, Ont.

SEND COUPON TO ENTER CONTEST

BIG FOUR INDUSTRIES, INC., Dept. N,
5938 Carthage Court, Cincinnati 12, Ohio

☐ Have your representative stop to check the serial number of our tire changer. Ours is a Big Four Henderson ☐ Another make ☐ Check which.

☐ Send FREE 3 folders on 14" tire service.

Station Name _____

Address _____

Signed _____

Introducing
the new budget-priced
**MALSBARY
HANDY DANDY
STEAM CLEANER**

Oil-fired portable **HANDY DANDY** steam cleaner. Gas-fired, stationary model also available.



Brings you trouble-free, profitable steam cleaning at a cost so low you can't afford to be without it

Here's the secret of the Malsbary **HANDY DANDY**'s effectiveness—cleaning pressures the equal of cleaners costing up to twice as much. **HANDY DANDY** cleans engines, under-bodies, parts, used cars, fleets, so fast you'll have your purchase price back before you know it.

HANDY DANDY is always on the job for either continuous or stand-by work. Caster mounting, plus hose and gun rack, enable you to move it easily all over the shop or yard, wherever and whenever there's cleaning to do.

Simple, Trouble-Free. Like the famous, larger Malsbary cleaners, it's

built for trouble-free use. Anyone can operate it. To regulate cleaning blast, you simply set burner control to pressure desired. Gravity soap feed does away with solution pump troubles. Fool-proof atomizing burner eliminates smoke, soot and irritating fumes. Half-inch coils (largest in its capacity range) minimize scaling.

Volume production and simplified design enable us to price the Malsbary **HANDY DANDY** so low you can't afford hand cleaning. See your Malsbary dealer now; find out how little it costs to own a **HANDY DANDY**.

Makers of steam cleaners,
steam generators, industrial
hot water heaters



845 92nd Ave., Oakland 3, Calif.

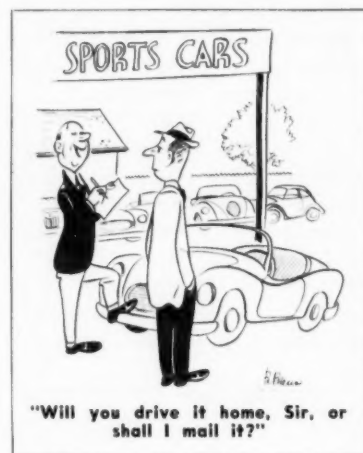
Alaska Volume Shop

Continued from page 106

ent the station has four gasoline pumps and one diesel, dispensing upwards to 29,000 gallons of automotive gasoline per month. Winter consumption is much greater than summer.

Four mechanics now are kept busy at this station. Five men carry out the duties at the service station and nine work at the garage and parts department and office.

Hours of operation are from 7 AM until 9 PM daily. Complete



wrecker service is available. Two wreckers are kept busy at the station and garage during the cold weather.

Fine products and skilled craftsmen, along with a personable owner, make Gene's Auto Service a very efficient and popular volume shop in Fairbanks—in the land of the midnight sun.



Improve your
hand with these
Behr-Manning Aces



Call for These **HIGH SCORING**
Behr-Manning Coated Abrasives

- NO-FIL® — for fast, non-loading, dry sanding
- ADALOX® — for dry sanding primer coats
- TUFBAK® — flexible, sharp wet sanding paper
- METALITE® — tough, rugged for metal clean-up
- DURITE® — for sanding prior to color coat



BEHR-MANNING CO.

TROY, NEW YORK

A DIVISION OF NORTON COMPANY



BEHR-MANNING PRODUCTS: Coated Abrasives • Sharpening Stones • Pressure-Sensitive Tapes
NORTON PRODUCTS: Abrasives • Grinding Wheels • Grinding Machines • Refractories • Electrochemicals
In Canada: Behr-Manning (Canada) Ltd., Brantford. For Export: Norton Behr-Manning Overseas Inc., Troy, N.Y., U.S.A.

*Because half your customers
need new spark plugs now . . .*

New "one-plug check" gives you a fast, easy way to increase spark plug sales

*And Champion's
new "Check-A-Plug" card does your
selling for you! It's FREE—from
your Champion supplier!*

Champion's new "one-plug check" program is a fast and easy way to find real prospects for spark plug service or replacement.

It doesn't take long to pull one plug. Less than 60 seconds, in many cars. Even in the toughest car, it takes less than 3 minutes—with a Champion "Plug-Master" wrench and "Plug-Mate" socket!

And Champion service engineers have found that any *one* plug almost always indicates the general condition of *all* the plugs in an engine. (They've checked hundreds of thousands of plugs in thousands of cars.) Exceptions to the rule are no problem. If the plug you pull looks good, and the customer is satisfied with his car's performance, the other plugs probably *are* all right. If the plug looks bad, you pull the others anyway, for service or replacement.

"CHECK-A-PLUG" CARD

With Champion's free new "Check-A-Plug" card you don't have to worry about convincing a skep-

tical driver that he needs plug work. Just hold his old plug up next to the matching condition on the "Check-A-Plug" card. Chances are that's all the "sales talk" you'll need!

The "Check-A-Plug" card shows up the two most common causes of misfiring: deposits of oil or carbon on insulator tips, and electrode gaps that are too wide. And, as you know, misfiring spark plugs waste gas and power.

PLUGS REALLY NEED CHECKING

Surveys show that at least half the cars in service need new spark plugs right now. That means *every other customer* you serve! And within any twelve-month period — *all* cars need new plugs.

Champion's new "one-plug check" program is a fast, efficient way to go after this big, profitable market. And — by giving your customers the benefits of new-Champion performance — you'll be doing them a real service!

If you don't already have your free Champion "Check-A-Plug" cards, ask your Champion supplier for yours today. Then — check *one* plug on *every* car!

PS—During April and May, Champion announcements on more than 100 major radio stations across the nation will urge motorists to have their spark plugs checked.

CHAMPION SPARK PLUG



New Champion "Check-A-Plug" card shows various conditions that call for plug service or replacement. Just hold the customer's old plug next to the matching condition on the card and let him see it. That's all the "sales talk" you need!

Champions are engineered for every car made by Ford, General Motors, Chrysler, American Motors, Studebaker-Packard, and every major foreign maker

*America's
Favorite...*

CHAMPION

SPARK PLUGS



COMPANY • TOLEDO 1, OHIO

Chilton's MOTOR AGE • April 1959

Circle 365 on Inquiry Card, facing 3rd Cover

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Replacing Spark Plugs Continued from page 45

illacs, the No. 5 and 7 wire should cross each other.

Chrysler and Imperial 1957 models: To remove the rear spark plug on the right bank it is necessary to remove the air cleaner and blower assembly.

Lincoln, 1952-56: Plugs can be removed without removing heater duct if special ratchet

wrench is available. On power steering models to reach the plug on the left bank use a 1 in. extension $\frac{3}{4}$ drive with special ratchet wrench.

On 1958-59 Lincoln, Mercury, Edsel & Continental: Remove wing nut securing air cleaner and then remove the air cleaner duct to reach the spark plugs.

Tire Chains Growing In Winter Demand

A recent survey of local news articles in hundreds of snow-belt newspapers revealed a shortage of tire chains in over a dozen states. Commenting on the survey was Melvin H. Campbell of York, Pa. Mr. Campbell is president of the National Association of Chain Manufacturers. He said that this winter resulted in a greater demand for chains in many sections of the country.

"After several unusually mild and open winters, the public has verified the wisdom of repeated recommendations by the National Safety Council, the American Automobile Association, Prof. A. H. Easton of the University of Wisconsin, and many state traffic officials," Mr. Camp-

K2-16

EXTRA PROFITS AT YOUR FINGERTIPS . . .

STOPS SQUEAKS

STOPS STICKING

in Spray Cans . . . and handy Tubes

K2-8

K2 SILICONE COMPOUND WATERPROOFS • INSULATES • LUBRICATES

Positively stops squeaking and sticking of rubber to metal — wood, leather, aluminum, glass. Prevents oxidation and corrosion — seals and insulates. Protects all rubber parts against heat and cold. Waterproofs ignition systems. Guards against moisture and corrosion on battery terminals . . . retards cracking of rubber and leather — keeps it soft and pliable. Will not wash off — one application lasts entire season. Completely safe. Does not stain.



FAN BELT



BATTERY TERMINALS



WINDOW CHANNELS

Also

WATERPROOFS
IGNITION SYSTEMS
LUBRICATES
EMERGENCY BRAKES and
PEDAL SHAFTS
IMPROVES RECEPTION
RADIO ANTENNA
PREVENTS FREEZING
DOOR LOCKS
STOPS SQUEAKS
UNDER CARBAGE MOUNTS
WHEEL DISCS



DN-6

Spray Cans and Tubes
packed in handy,
self-selling
Display Cartons
for individual
consumer sales!



DN-12

Marson
CORPORATION
Revere 51, Mass.



bell declared. "These impartial authorities have advised snow-belt drivers to carry reinforced tire chains in the trunk . . . to use them when needed for deep or hard packed snow" . . .

"The newspaper interviews with many dealers in numerous snow stricken cities were very interesting," observed Mr. Campbell. "Several editors commended the wisdom of conscientious gas station men, tire and car dealers who make it a policy to sell a substantial percentage of their customers on the logic of buying tire chains before winter sets in."

These are **TORQUE WRENCHES** used and recommended by leading engine builders because they are:

- ★ Accurate For Life
- ★ Faster and Handier to use
- ★ The only torque wrenches that can be used accurately with adapters and extensions
- ★ Guaranteed accurate within 2% of maximum scale reading
- ★ Ruggedly constructed for continuous service



The handle **RE-LEASES** momentarily the instant the pre-set torque is reached. Can be set to signal for right or left hand applications over full scale range. You can change setting instantly right on the job. A sharp distinct sound can be heard at the same moment the handle signal is felt or you can see the torque applied on an Easy Vision metal scale which serves as a built in Torque Tester. **FEEL IT - HEAR IT - SEE IT.**

SENSORY MODELS

CATALOG NUMBER	CAPACITY INCH POUNDS	MECHANICS SUGGESTED NET PRICE
\$300-I	0 to 300	\$35.20
\$400-I	0 to 600	36.90
\$1200-I	0 to 1200	38.85
\$1800-I	0 to 1800	47.95
\$2400-I	0 to 2400	61.80
\$3600-I	0 to 3600	82.30
FOOT POUNDS		
\$25	0 to 25	35.20
\$50	0 to 50	36.90
\$100	0 to 100	38.85
\$150	0 to 150	47.95
\$200	0 to 200	61.80
\$300	0 to 300	82.30



The same as the Sensory model, but is not equipped with the signalling feature. A deluxe gauge tool that is guaranteed to remain accurate for life and is engineered to cycle a minimum 300,000 times.

STANDARD MODELS

CATALOG NUMBER	CAPACITY INCH POUNDS	MECHANICS SUGGESTED NET PRICE
F300-I	0 to 300	\$24.30
F400-I	0 to 600	27.15
F1200-I	0 to 1200	29.95
F1800-I	0 to 1800	35.70
F2400-I	0 to 2400	53.95
F3600-I	0 to 3600	68.70
FOOT POUNDS		
F25	0 to 25	24.30
F50	0 to 50	27.15
F100	0 to 100	29.95
F150	0 to 150	35.70
F200	0 to 200	53.95
F300	0 to 300	68.70



A torque wrench designed and priced for the mechanic. Guaranteed life time accuracy. Each model in the wide range of torque capacities is light weight and compact in design. The torque accuracy is held to the highest standard 2% of the maximum scale reading. Patented handle allows using these with adapters and rugged constructing makes them almost indestructible.

ROUND BEAM MODELS

CATALOG NUMBER	CAPACITY INCH POUNDS	MECHANICS SUGGESTED NET PRICE
DR25-I	0 to 25	\$17.95
DR50-I	0 to 50	17.95
DR100-I	0 to 100	17.95
DR200-I	0 to 200	17.95
DR300-I	0 to 300	17.95
R600-I	0 to 600	12.35
R1200-I	0 to 1200	13.15
R1800-I	0 to 1800	16.75
R2400-I	0 to 2400	17.95
FOOT POUNDS		
DR25	0 to 25	17.95
R50	0 to 50	12.35
R100	0 to 100	13.15
R150	0 to 150	16.75
R200	0 to 200	17.95

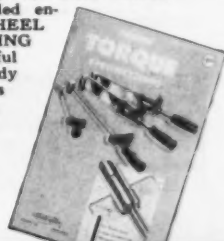
SPRING TESTER



Permits fast and accurate matching and checking of valve springs, clutch springs, etc. Threaded column with vernier scale permits adjustment of test platform to exact test length within .003 of an inch. Built in tone signal device sounds the instant spring is compressed to desired length. Operated by any accurate torque wrench. Spring strength, in pounds, equals the foot-pound reading of the torque wrench.

Free TORQUE SPECIFICATIONS

For over 130 makes and more than 1200 models of automobiles (U.S. and Foreign), trucks, tractors, outboards, motorcycles, diesel, aircraft, marine and small air-cooled engines. **SPARK PLUG-WHEEL BEARING-VALVE SPRING DATA** and many helpful torque tips . . . Plus handy torque chart for all screws -No. 4 to and including large 2 inch bolts. 31 pages of factory approved information. Sent Free if requested on your auto service letter or bill head. Please also write name of your local tool jobber.



Write to Dept. 615

PA **STURTEVANT CO.**
ADDISON **QUALITY** ILLINOIS

World's Leading Exclusive Manufacturers of Torque Wrenches

IGOA Undertakes Both • • Continued from page 41

tory of Hawaii, and 66 National Allied Members. We are very proud and thankful to have the assistance of these Independent Manufacturers, Trade Magazines, and National Standard Parts Association.

How It Developed

IGOA has been developed in

the following manner: At the local level, eight or more Independent Garagemen join together, thus forming a local unit. The local unit is chartered, and incorporated in accordance with their state laws. This group joins the national association, as a unit-member-at-large.

When three or more cities in

one state have completed local organizations, such as this, then they organize a state association. Each state, or in the case of the unit-member-at-large, elects one person from their membership, as a voting member to the national Board of Directors.

Today, IGO has many effective programs in operation: They are, Customer Budget Plan, Collection System, Educational Programs, Cooperative Advertising, and some states have done a very good job of promoting Legislation favorable to our industry.

The main program that we are pushing today, is, Apprenticeship and Training. Our National Standards for Apprenticeship and Training are completed and have been registered with the United States Department of Labor, Bureau of Apprenticeship and Training. This Governmental Department has given IGO a great deal of help by assisting with writing these standards.

As a result of our experience with apprenticeship, there appears to be a rising need to provide training opportunities for our entire work force, both Apprenticeship and Training for Journeymen. The Journeymen program will place in operation a plan which will greatly improve the automotive mechanics of this nation.

It was necessary that a method be devised for the purpose of establishing the standards and qualifications so that skills and abilities would be properly classified. A Certificate of Registration will be issued to all mechanics who qualify under the apprenticeship standards by having had the necessary experience and then passing the examination, which will make him eligible for registration as a "Motor Vehicle Repairman."

The Apprenticeship Training Program will do a great deal, to help develop new mechanics for the future and also to improve

Stewart-Warner

DELUXE TWIN GAUGE PANEL

Meets The Demand—Makes The Sale!




Assures complete engine safety . . . adds modern styling to any car interior!

Modern cars create new instrument market—and new profits for you—when you offer your customers Stewart-Warner's smartly styled Deluxe Twin Panel. Besides battery and oil warning lights, car owners need an ammeter and oil pressure gauge for complete operating safety. Stewart-Warner's new Deluxe Panel meets this important need. Get your share of this new instrument market with Stewart-Warner's "made-to-order" combination:

Deluxe Panel. Luxurious off-white "Colonial" grain color harmonizes with any interior . . . holds any 2" or 2 1/4" diameter Stewart-Warner Instruments. Complete with bracket, light wire, socket and installation instructions.

Stewart-Warner Ammeter. Tells actual rate of current flow, indicates need for adjusting voltage regulator, indicates overcharging or undercharging of battery.

Stewart-Warner Oil Pressure Gauge. Tells exact oil pressure in pounds, at any engine speed—helps assure safe engine operation.



Call Your
Stewart-Warner
Wholesale
Representative Today!

Symbol of

SW

Excellence

INSTRUMENT DIVISION

STEWART-WARNER

CORPORATION

Dept. AD-49,
1840 Diversy Parkway,
Chicago 14, Ill.

Circle 367 on Inquiry Card, facing 3rd Cover

(Continued on page 124)



One of Fresno's leading dealers, Allan R. Crocket heads the De Soto Dealer Association of Northern California, represents his region on the De Soto Factory-Dealer Council.

Fresno De Soto dealer **Allan R. Crocket** expects the twenty-first year to be one of his biggest, because—

"The '59 De Soto is undoubtedly the best-quality car we've had"

Allan R. Crocket, partner of Crocket Bros., Fresno, Calif., is confident that the current model year will be one of the best since the dealership signed with De Soto in 1938.

"I felt this would be a good year when I took delivery of our first '59 De Soto at the dealer preview in Detroit last September," Mr. Crocket says.

Sweetest running car I've ever driven

"I think the '59 De Soto is the best-quality car we've had in our 20 years with De Soto. The materials are excellent, and the workmanship is very good. Personally, I believe that it's the sweetest running car I've ever driven.

"The public has responded tremendously to this new car and wants it. People like the new

De Soto features, and most of all, they like the quality and price. We're shooting for all-time-high sales in '59—and with the quality product we have to sell, we're sure we'll make it.

De Soto promotions more than "window banners"

"Helping us will be what I think is the best merchandising support being offered by any car manufacturer. A De Soto promotion is more than just a package of window banners. It's a complete selling campaign that helps keep our salesmen on their toes and brings in prospects. We use every one the factory sends out.

"This looks like a good year for De Soto—and for us."

IT PAYS TO BE A

DESOTO DEALER!

IGOA Undertakes Both • Continued from page 122

the techniques of the craftsmen who are already employed in this industry.

(Editor's Note) IGOA's Apprenticeship Training Standards shown in the featured illustration on page 41 spells things out. In more than fifty pages the plan is laid out step by step.

It opens with the report of the

Educational Committee's report to IGOA's Board of Directors which defines apprenticeship as "a business-like system of training in which the young worker entering industry is given thorough instruction and experience, both on and off the job, in all practical and theoretical aspects of the work in a skilled trade."

The committee report, developed with the cooperation of the Bureau of Apprenticeship and Training, U.S. Dept. of Labor, recommends provision for training as follows:

1. The starting age of an apprentice to be not less than 16.

2. A schedule of work processes in which an apprentice is to be given training and experience on the job.

3. Organized instruction designed to provide the apprentice with knowledge in technical subjects related to his trade. (A minimum of 144 hours per year of such instruction is normally considered necessary.)



4. A progressively increasing schedule of wages.

5. Proper supervision of on-the-job training with adequate facilities to train apprentices.

6. Periodic evaluation of the apprentice's progress, both in job performance and related instruction, and in the maintenance of appropriate records.

7. Employee-employer cooperation.

8. Recognition for successful completions.

The committee pointed out that the purpose of its policy statement is to "provide IGOA Inc. state organizations and (Continued on page 128)

3 RIGID Tools

to speed your automotive repairs

New RIGID Hex Wrench
stops knuckle busting
...gives tight multi-sided grip on all Hex and Square nuts!

Three Sizes:
No. 11 for 3/8" to 1/2" nuts,
No. 17 for 1/2" to 3/4" nuts,
No. 25 for 3/4" to 1" nuts.



Quick adjustment — stays to size . . . this new Hex Wrench goes on easily, won't slip off — harder you pull, the tighter it grips . . . no more skinned knuckles or rounded nut shoulders! Narrow jaw for close quarters. Famous RIGID heavy-duty design, guaranteed housing, comfort-grip handle. Three sizes for 3/8" to 2" nuts. Make your automotive repair work easier and faster — order RIGID Hex Wrenches from your jobber.

Avoid Expensive Motor Dismantling!
RIGID LongGrip Extractors and High Speed Drills
take out broken off screws fast!



20 precision tools, Drills, Drill Guides, and Extractors, for 1/8" through 1/2" screws. Maximum extraction depth 1". Set packed in attractive, non-breakable box.



Set No. 10



Set No. 25

Get quick, clean cuts of tubing and exhausts with RIGID Tubing Cutters

5 Sizes for 1/8" to 4"



No burr, no distortion . . . rollers smooth tubing for quick clean connections. Compact, tight, strong, always track perfectly, always handy. Fold-in reamer on Nos. 10, 15 and 20 protects hands. Special 3-wheel cutter, RIGID No. 315 for fast, close quarter work.

Circle 368 on Inquiry Card, facing 3rd Cover

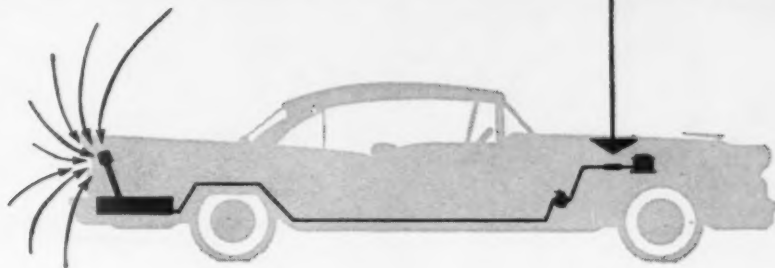
The Ridge Tool Company
Merrill, Ohio, U.S.A.

**ALREADY BREAKING
SALES RECORDS**



CARTER

IN-THE-LINE GASOLINE FILTER



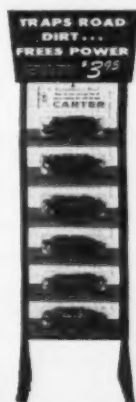
GET YOUR SHARE

**Trade Reports:
"CONSUMER EXCITEMENT,
STRONG SALES!"**

Completely new idea in gas filters—sweeping the country on a wave of sales! Totally new design concept with terrific motorist appeal... moves fast at \$3.95 plus installation. Not a "paper" element, but a genuine Micro-Ceramic Filter—plus patented Magnatrap® and Automatic Bypass Relief Valve! Laboratory and road tested and proved—maximum filtering performance for one full year of normal driving without filter replacement. Complete, powerful promotion package—and 3 out of every 4 motorists are prime prospects!

FREE!

With initial order for Carton of 10 Filters, each in handsome individual package, you get Display Rack, handy Tube Cutter, Window Posters, Consumer Folders. Don't miss your share of profits... stock up now... call your Supplier today!



Endorsed by

Tom McCall

famous automotive authority
"traps road dirt, frees power!"

Tom is known to millions of motorists... when he says something, they stop, look, and buy! Tom's famous face is featured in Carter's mighty selling push to promote In-The-Line Filter sales for you!



CARTER CARBURETOR

DIVISION OF ACF INDUSTRIES, INCORPORATED
ST. LOUIS 3, MISSOURI

New spray equipment for the



**NEW REMOTE-CUP OUTFIT
IS MADE TO ORDER
FOR THE NEW CONTOURS**

\$93³⁴*

Gun flexibility is the answer to painting the winged fenders, flared fins, and grille overhangs on late-model cars. The remote cup lets you tilt the gun at *any* angle without affecting the fluid flow or having the cup in the way when getting into close quarters.

The Remote-Cup Method is faster, too. Painting over-all jobs is reduced as much as 40% because two-quart capacity eliminates stops for refills. Five-way spray control permits better regulation of spray-pattern size, degree of atomization, wetness of coat; lower pressures reduce overspray.

new shapes and finishes!



NEW SUPER-SOFT-SPRAY NOZZLE . . . \$7¹⁰*
ENGINEERED FOR MODERN FINISHES

Fits all
JGA and MHC
Spray Guns

Acrylic, enamel, and lacquer finishes require the full wet coverage that the new DeVilbiss Super-Soft-Spray Nozzle provides. Incorporating features found in no other spray head, this new nozzle's improved air-jet action produces ideal atomization with a wide, soft pattern that assures

better adhesion . . . makes lapping easier . . . and reduces rebound that causes excessive overspray. With the Super-Soft-Spray Nozzle you get better flow-out and higher gloss. And thanks to super-precision machining, you get dependable performance even under heavy-duty service.

Both of these new DeVilbiss products will help you get better, faster finishes with *all* materials on *all* models. They're paint-shop profit boosters! Call your nearest DeVilbiss distributor or jobber for complete details, today . . . or, if you prefer, write us direct.

*slightly higher in West

FOR BETTER SERVICE, BUY

DEVILBISS



THE DEVILBISS COMPANY

Toledo 1, Ohio

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Branch Offices in Principal Cities

IGOA Undertakes Both...Continued from page 124

IGOA, Inc. local area associations with a pattern to guide them in their organization and operation of apprentice systems."

After a statement of Apprenticeship Policy, the Recommended Standards offers two alternative methods of training; also recommended work experi-

ence schedules and apprentice wage schedules.

Section III of IGOA's Apprenticeship Training Standards details its plans for the appropriate record to be kept by apprentices.

Section IV outlines Apprenticeship Standards for IGO local units. The outline literally takes those interested in local training

by the hand with all pertinent information. Followed by Section V, which again spells out "How to Start a Local Apprenticeship Program."

The final section (VI) is the proposed "Registered Motor Vehicle Repairer," segment of the Standards. This goes beyond apprenticeship training and seeks to carry its program through training for journeymen.

The purpose of Journeyman training is three fold:

1. To provide training opportunities for those who did not have the opportunity to serve a planned apprenticeship.

(Continued on page 130)

Kennedy ... In Tune With Your Profits!

Accurate, easy-to-use Kennedy testers give you the competitive edge in profitable tune-up service...

- Timing Light
- Tachometer
- Ignition Tester
- Regulator Tester
- Point Dwell Tester



NEW!

All new, advanced design, complete with rugged metal storing case...

Sparkling chrome-plated testers built for long service life and professional appearance. Quick dial reading, finest quality cords. In fact, a sturdy, precision set for years of extra-service and accuracy. Low priced, too — call your jobber now.

Kennedy SERVICE TOOLS COMPANY

788 Evans Ave. • Akron 5, Ohio



"What did Junior want the car for tonight?"

Lepene Joins AWDA Committee

Walter S. Lepene of Doan Manufacturing Corporation of Cleveland, Ohio, has been added as a manufacturer advisory member of the Automotive Warehouse Distributor Assn. membership committee.

The membership committee is headed by A. P. Walter, Gabriel Distributing Company, Chicago, Chairman, and includes Sol E. Fuchs, Fox Distributing Company, Chicago, and W. J. Fergus, Midwest Automotive Warehouse, Inc., Chicago.

President of AWDA is Thomas S. Perry.

Announcing...

ARO Follow-up Service



**Sure Cure For Lube
Equipment Service Headaches**

Here's what A.F.S. does on each new ARO installation —



1 — Complete inspection to insure proper operation and appearance.



2 — Makes any necessary adjustments.



3 — Gives operating instructions to your personnel.



4 — Furnishes preventive maintenance tips.

Another ARO First! A.F.S. (Aro Follow-up Service) meets a widespread need. It's the sure way to get top performance—and top profits—in your newly equipped lube department right from the start!

You get A.F.S. *free of charge*—a **BIG PLUS** when you purchase Aro Lube Equipment! The follow-up man who will call on you is your Aro Representative. His call will cover all five points offered exclusively by A.F.S. to help you boost lube profits. Be sure to look into Aro quality-built lube equipment for all your needs . . . everything from overhead reels and cabinet models to hand guns and grease fittings. Ask your ARO Representative for full details.

5 — Tells you where you can obtain future service on the equipment.

ARO MOBILE DEMONSTRATOR



Watch for it in your territory! It shows every type of modern lube equipment in actual operation. Helps you find your best buy!

THE ARO EQUIPMENT CORPORATION
Bryan, Ohio

Aro of Calif., 3141 S. Grand Ave., Los Angeles 7, Calif.
Aro Equipment of Canada, Ltd., Toronto 15, Ontario
Offices in All Principal Cities

ARO LUBE EQUIPMENT
Automotive—Farm—Industry

IGOA Undertakes Both • • • Continued from page 128

2. To provide training opportunities in order that our present mechanics may keep abreast of all new developments.

3. To provide training opportunities for those desiring to advance in higher positions in the industry.

The report adds that, "in con-

junction with these proposals there is also a desire to develop an IGOA plan of recognition for those who voluntarily participate in activities which tend to improve their services in the industry and to the public which they serve. Reference has been made to a plan of registration, qualification of mechanics."



Calif. IGO Plans June Convention

Preparations are progressing for the Annual State Convention of the Independent Garage Owners of Calif., Inc. It will be held at the Huntington-Sheraton Hotel, Pasadena, June 18-20.

Several thousand dollars' worth of prizes will be handed to winners at an awards Banquet concluding the convention.

IGO local units making the highest percentages of membership gains between March 1 and June 1 will be awarded five scholarships, totalling \$1,170.00, for training courses at Auto Mechanics Institute.

Ohio Chapter Sparks Apprentice Training

The Independent Garage Owners of Ohio have recently registered the standards for their apprenticeship training program with the Ohio State Apprenticeship Council. The local units throughout Ohio are now making the final adjustments in the standards. Aim is to fit the needs of each area reports Harold Grindle, IGO executive director, Ohio.

The standards are patterned after the national standards developed by IGOA. This program for apprenticeship training to develop competent motor vehicle repairmen has long been needed in the industry says Mr. Grindle. He also reported that a unified training program for those persons now working in the industry is being developed.



CHECK THE EXTRA VALUE IN WAYNE COMPRESSORS!



GET YOUR FREE AIR COMPRESSOR GUIDE-CATALOG

QUALITY FEATURES	WAYNE	A	B	C	D	E	F	G	H
DUAL PAN CONSTANT LEVEL OILING SYSTEM	YES	NO	NO	NO	NO	NO	NO	NO	NO
DUAL INTAKE VALVES	YES	NO	NO	YES	NO	YES	YES	NO	NO
SMOOTH COPPER TUBING INTER. & AFTERCOOLER	YES	NO	NO	NO	NO	YES	YES	NO	NO
TAPERED CRANKSHAFT FOR FLYWHEEL ATTACHMENT	YES	NO	NO	NO	NO	NO	NO	NO	NO
FOUR PIECE OIL RESERVOIR, CRANK CASE, CYLINDER AND HEAD CONSTRUCTION	YES	YES	NO	NO	NO	NO	YES	NO	NO
THERMAL PROTECTION STD. EQUIPMENT	YES	YES	NO	YES	NO	YES	NO	YES	NO
FOUR PISTON RINGS	YES	YES	NO	YES	NO	YES	NO	YES	NO

* Comparison of typical Wayne 2-stage Compressor with competitive makes



When you install Wayne Air Compressors you are dollars ahead in value and service. You get exclusive Wayne values in features, workmanship and service life. Whether you specify a fractional HP single-stage or larger two stage you are sure of all the air-power your station needs to keep salespower at its peak. Every Wayne Compressor is station-engineered and you are certain of guaranteed usable air output. The Wayne Pump Co., Division of Symington Wayne Corporation, Salisbury, Maryland. Wayne Pump Canada, Limited, Toronto, Ont.



COMPRESSORS BY

Circle 372 on Inquiry Card, facing 3rd Cover

General Motors'
New 1959 Cars with...

NEW HIGHS IN CARBURETOR EFFICIENCY

Make Every Gallon Of Gas Do A Lot More Work!

Extra-value features on the new 1959 GM cars give you a lot more car per dollar. And Rochester-GM Carburetors help your new GM engine power more car per gallon of gasoline than ever before.

Rochester-GM Carburetors—designed, researched and rigidly tested for exclusive use on the new Chevrolet, Pontiac, Oldsmobile, Buick and Cadillac—pay off in better mileage and performance.

Here at GM's Desert Proving Ground, Rochester-GM Carburetors are subjected to millions of tortuous miles under severe temperature conditions. This extensive testing assures you of dependable carburetor performance when you buy your new car. And as you drive it, an army of factory-trained specialists will help keep your Rochester-GM Carburetor in perfect condition. *Rochester Products Division of General Motors, Rochester, New York.*



America's
number one
original equipment
carburetors

ROCHESTER CARBURETORS

AMERICA'S NUMBER ONE
CARBURETOR
ADDS DRIVE TO YOUR SALES STORY IN
The Saturday Evening
POST
telling 25,000,000 automotive-minded readers
AMERICA'S NUMBER ONE
PERFORMANCE AND ECONOMY STORY

This is the General Motors Desert Proving Ground near Phoenix, Arizona. Here, Rochester-GM Carburetors are tested on GM cars in scorching heat and blistering sand. They must perform with the same efficiency as on Main Street in your home town.

Testing Automotive Safety Equipment

United States Auto Club announced that contracts have been signed with the Purdue University Research Foundation for a series of tests of automotive safety equipment. This program is an effort of USAC to improve safety conditions not only in racing but on the highway as well.

The program concerns a study of the design of automotive safety equipment. Also studied will be materials currently used in constructing this equipment. Knowledge gained from this study could be of use to the general public and law enforcement agencies.

The initial objective of this study will be to gain more knowledge about crash helmets. Chief

investigator for this study is Dr. E. Wood. He is Assistant Professor of Civil Engineering, School of Civil Engineering, Purdue University.

Air Conditioning Units For Rambler

Air conditioning is now available for 1958 and 1959 Rambler American models as a dealer-installed option.

The evaporator assembly is mounted below the glove box drawer on the right side of the dash panel. The unit is 15½ inches wide. It is 11½ inches deep and seven inches high.

The air-conditioning system has three air deflector louvers which can be individually adjusted, a temperature control, and a three-speed fan. The entire system, including the evaporator, compressor, condenser and receiver tank, weighs approximately 65 pounds installed.

1959 International Auto Show In N. Y.

More than 600 cars are currently on display at the 1959 International Automobile Show.

The cars are being introduced by 68 manufacturers from Czechoslovakia, England, France, Germany, Holland, Italy, Japan, Sweden and the United States. They are on display at the Coliseum in New York. Show closes April 12. It opened April 4.

The cars feature all shapes, sizes and colors. Some have fiberglass bodies and automatic transmissions. Others boast such trimmings as inlaid walnut paneling on the dashboard and lambs wool carpeting.

Holland's first car for the American market, which makes its debut this year, is said to be stall proof and require no lubrication.

Too many people pride themselves on their ability to understand things without giving them a thought.

this powerful **Feridium* anode**
MAKES THE BIG
DIFFERENCE
IN
LEE
Resin-weld*
OIL FILTERS
THE ONLY FILTERS THAT
COMPLETELY REMOVE
BOTH SLUDGE AND ACIDS!

Of course, there are other big differences in LEE FILTERS that set them completely apart from all others. They feature **ONE-PIECE CONSTRUCTION** — **BUILT-IN NEOPRENE CENTER POST SEALS** — **MULTI-FLOW PERFORATED CENTER TUBE OUTLETS** — **TOP AND BOTTOM PLATED FINISH STEEL CAPS** — **PLATED FINISH STEEL SHELLS** (there's no paint to dissolve and contaminate the oil) — **FULL-FLOW UNRESTRICTED BODY SHELLS** (as many as 3,000 inlet and outlet apertures) — **HEAT-TREATED AND CURED ACCORDION-PLEATED, RESIN-IMPREGNATED, FULL-FLOW ELEMENTS** and the famous **FERIDIUM* ANTI-ACID ANODE CATALYST!**

Lee Resin-Weld* Filters conform to functional standards set by SAE, U.S. Army Procurement, Fort Belvoir Research and Development and initial equipment requirements of car manufacturers. Write for catalog.

"Discardit"™ LEAK-PROOF Element with the Feridium* Anode!

"Micralytic"™ FLAME-PROOFED Element for Carburetors!

ADVANCED LIFE POSITIVE FILTRATION POPULAR SCIENCE

*Feridium, Resin-weld, Discardit and Micralytic are the Registered Trade Marks of Lee Filter Corp. Patents Pending.

LEE FILTER CORP., North Arlington, N. J.



E-CON-O-CLENE



“Brushed on—sprayed on—in a tank
...we clean practically everything around
the shop—parts to driveways—
with this low-cost cleaner”

“Bendix ECONOCLENE* gives us the positive cleaning action that removes grease and grime like magic. We use it in a tank for cleaning engine and transmission parts. We also found that ECONOCLENE quickly removes dirt and oil from cement floors and grease racks. And as a spray cleaner, it's tops for washing down engines. Because it's a concentrate, it saves us money, too. We mix ECONOCLENE with a suitable solvent, in varying proportions, to get the most effective solution for the job to be done.”

The Bendix line also includes two special parts cleaners. SPEEDCLENE*, a super-fast, premium parts cleaner which combines positive cleaning action with a pleasant odor. And METALCLENE*, a cold-immersion cleaner which effectively removes dirt, grease, ethyl stain and gum from metal parts. Along with ECONOCLENE, these products were developed as a result of Bendix research into shop cleaning costs and practices.

*REG. U.S. PAT. OFF.



Bendix PRODUCTS DIVISION **South Bend, IND.**



Safety Seat Belt Campaign Launched

A nationwide campaign was recently launched by three agencies concerned with traffic accidents and injuries. The three are: The United States Public Health Service, the National Safety Council and the American Medical Association.

The campaign of education is

aimed at reaching every driver in America. It is designed to convince him that using auto seat belts is the best kind of insurance for minimizing the chances of serious injury if he gets involved in an accident.

The installation and use of seat belts is an aid, say these agencies. It is not a substitute for common sense in driving. The big problem is a two-fold one: Get drivers to install good qual-

ity seat belts in their cars; get them to use them.

Auto seat belts have had the approval of the Roberts Committee. This is a committee of the United States Congress. Approval has been given also by the American College of Surgeons, the U.S. Air Force and the Cornell University Medical School. These latter two agencies

NEW! ...meets every automotive need! the modern **DAVEY** Rotary Compressor



2-3-5 h.p. models.
100-200 p.s.i.

Designed and built specifically for service stations and repair shops, modern Davey Rotary Compressors offer features never before available.

- ✓ Silent . . . vibrationless
- ✓ Easiest of all compressors to install and operate
- ✓ No belts or couplings
- ✓ Lightweight, compact . . . save up to 60% on space required
- ✓ 50% fewer working parts than ordinary compressors
- ✓ Long, trouble-free life

AA-4753

Write today for complete information about modern Davey Compressors. Ask for E-265

Jobber Inquiries Invited

DAVEY

pioneers of
"air-cooled air"

INDUSTRIAL DIVISION
DAVEY COMPRESSOR CO. • Kent, Ohio

Circle 373 on Inquiry Card, facing 3rd Cover



have been piling up impressive data. They have done so for more than two years. They are finding out the very real help of seat belts in thousands of actual car crashes.

When this new nationwide campaign reaches its peak, car dealers, garage owners, service station operators and others in the automotive service field will find a far more receptive market for the sale and installation of safety belts.

The National Safety Council, for instance, points out that not all seat belts are reliable. Those which are manufactured and installed according to the specifications of the Society of Automotive Engineers can be considered acceptable, says the Council.

He: "You know, Honey, I'm not myself today!"

She: "Oh, that's it . . . I wondered why you were so pleasant!"

Chilton's MOTOR AGE • April 1959

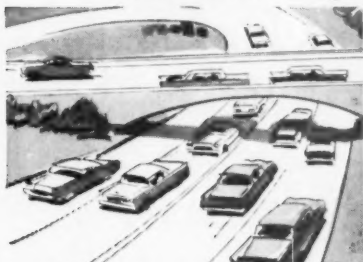
FRAM'S "TREASURE HUNT CARS" ARE ROLLING!

IN THE FABULOUS FRAM \$60,000.00 SILVER ANNIVERSARY TREASURE HUNT!



HOODS UP FOR TREASURE!

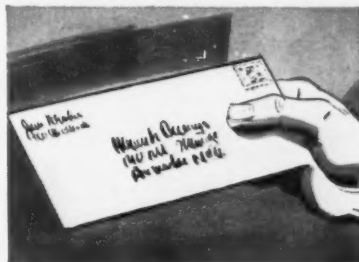
Read how to get your share!



10,000 secretly marked FRAM Oil and Air Filter Cartridges were distributed last year and installed in old and new cars across the country during regular servicing. These cars are now on the road!



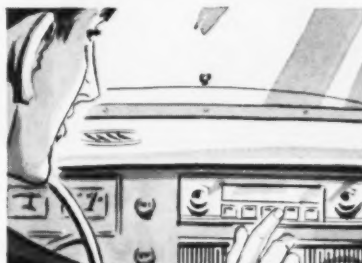
FILTERS PAY UP TO \$1,000... if tagged like this! Each Treasure Hunt Tag has a predetermined value—based on a drawing supervised by bank officials. Values are: \$1,000, \$500, \$100, \$50, \$10, \$5, \$1.



WHEN YOU FIND a Treasure Hunt Cartridge, do this: (1) Detach Treasure Hunt Tag (2) Mail to FRAM with your name... your customer's name... and your wholesaler salesman's name. All three win!



FRAM WILL GIVE YOU the cash amount already assigned to the cartridge you find... up to \$1,000! The car-owner will get the same amount... so will your wholesaler salesman! *Everybody* has a chance to win!



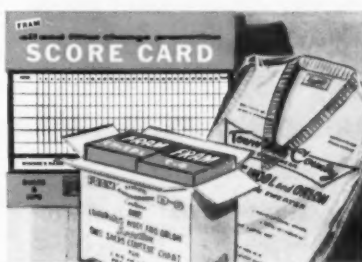
MOTORISTS ARE LEARNING ABOUT Treasure Hunt... from repeated announcements over CBS and Mutual networks during Spring change-over, and from FRAM national magazine advertising.



YOU CAN'T LOSE! Whether or not you find a winning tag, you're bound to get all the extra sales built by this Treasure Hunt: Added oil changes, lube jobs and new Oil and Air Filter sales!



CHECK EVERY CAR! Check both oil filter cartridge and air filter cartridge. Start NOW! Treasure Hunt ends June 30, 1959, and is subject to Federal, state and local laws and regulations.



ANOTHER BIG "PLUS"! This luxurious sweater can be yours... at no extra cost... to use as an award in an oil-change and filter-change drive among your own men. See FRAM D-8 PROMOTION at right!

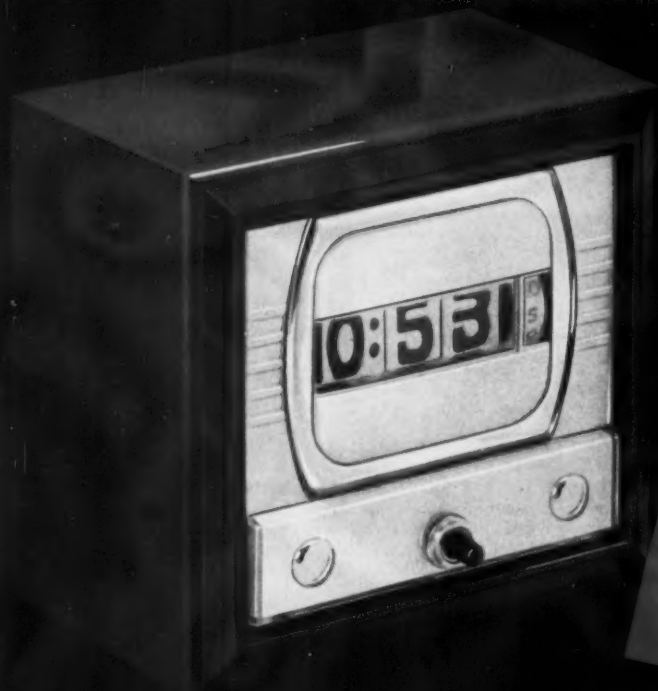
D-8 promotion for your men... At no cost to you! You get one beautiful SWEATER packed with 2 FREE FRAM CARTRIDGES (1 C-4 & 1 CH-6PL) and SCORE CARD for only \$4.50... with the purchase of any 24 FRAM cartridges. When you sell the 2 FREE FRAM Cartridges at regular list, you recover the entire cost of the D-8.

RUN YOUR OWN SALES DRIVE! FRAM makes it easy... with FULL instructions and FREE SCORE CARD. Just assign point value for each oil and filter change... set a time limit... and award sweaters to winners!

FRAM CORPORATION
Providence 16, R. I.

LIMITED TIME OFFER!

This \$10.95 Television



GLOLITE

**FOCALIZER
LIGHT EASES
TV EYE
FATIGUE!**

GENUINE
NUMECHRON
"Time At A Glance" CLOCK
MANUFACTURER'S
SUGGESTED
RETAIL PRICE **\$10.95**

You get all these features with the GLOLITE television clock...

- Luminescent GLOLITE window glows in the dark
- Useful as *night light* in home or place of business
- Plastic case in attractive walnut finish
- Easy to read, bold, colorful numerals
- Self-starting NUMECHRON electric clock
- U.L. Approved motor and cord
- Guaranteed by manufacturer for 25,000 hours of operation
- FOCALIZER "Stare-Break" glow eases TV eye fatigue

CALL YOUR WHOLESALE TODAY!

Lamp-Clock for \$4.95*

WITH ANY 50-PLUG ASSORTMENT
OF AUTO-LITE® SPARK PLUGS



This is a special limited time offer! Ask your wholesaler about the special Auto-Lite promotional plans using this clock to help you increase your spark plug sales.

Order now—any assortment of 50 Auto-Lite Spark Plugs—and get this valuable premium.



TRANSPORT

Designed for rugged, continuous service in transport trucks and heavy duty farm equipment.



RESISTOR

Auto-Lite Resistor Spark Plugs give long life, quick starts, and smooth performance. Suppress spark plug interference with radio and TV reception.



STANDARD

Used as original equipment on millions of cars, trucks, and tractors. Built to rigid specifications.



MARINE & SMALL ENGINE

Used by leading manufacturers as original equipment in outboards, mowers, saws, and garden tractors.



The first spark plug ignition-engineered for today's engines and today's driving. Power Tip "fires up" overhead-valve engines at *all* speeds.

*Suggested price to dealer.

AUTO-LITE® POWER TIP

THE ELECTRIC AUTO-LITE COMPANY • TOLEDO 1, OHIO

ARI Holds General Meeting in Chicago

The Automotive Refinish Institute had its second general meeting recently during the ASI show in Chicago. The organization is designed to upgrade body shop operations, advance the standards of the automotive painter and retail man, and to promote better salesmanship in painting and refinishing outlets.

The organization celebrated its first birthday December 17, 1958.

During its first year the primary objective of the group was to set up industry standards and procedures as a basis for the guidance of quality and efficient shop refinishing operations.

A specifications manual has been designed to set up these standards. J. R. Mason, Rinshed-Mason Company and chairman

of the ARI standards and awards committee, reported that progress to date "has been very good." He added that the rough draft was "very encouraging." He pointed out that development of the manual is important to the organization since it will form the foundation of the group's activity.

The manuals will be made available to trade schools, car dealers, auto refinish shops, etc., to help set high quality standards.

In other business J. R. Mason was re-elected to a three-year term as a member-at-large . . . It was decided that the post of representative for Allied Manufacturers be left open until additional members were obtained in this field . . .

Reappointed as officers by the executive committee were: L. J. O'Doherty, chairman; J. H. Gustafson, 3M Company, secretary; W. E. Marsden, vice chairman; and A. S. Boehm, treasurer.

Thirteen companies representing all segments of the automotive refinish industry participated in the organizational meeting in 1957. Elected to serve as an executive committee was one man from each of the five major segments of the industry plus one member-at-large.

The executive committee membership includes: G. I. Stoddard, DeVilbiss Co., spray painting; A. S. Boehm, Black and Decker Manufacturing Co., autobody tools and equipment; W. E. Marsden, Minnesota Mining and Manufacturing Co., tape and abrasives; L. J. O'Doherty, Acme Quality Paints, Inc., paint and thinners; and J. R. Mason, Rinshed Mason Co., member-at-large.

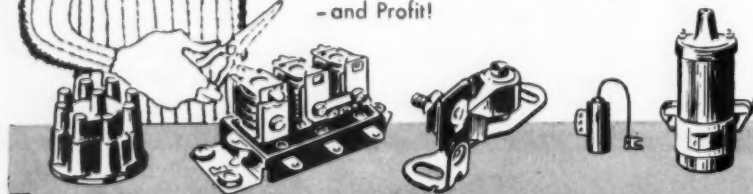
Other firms included in the organization are: H. K. Porter, Sherwin-Williams Co., Martin-Senour Co., Binks Manufacturing Co., Behr-Manning Co., Arco Paint Co., Bear Manufacturing Co., and Blackhawk Manufacturing Co.

on every
OVERHAUL
be sure you

P&D-ize

for Top Performance

Your tune-up is not complete unless you P&D-ize the whole ignition system. Then you can be sure of customer satisfaction - for P&D parts are warranted a full year. Get into the P&D-ize groove - learn the P&D story for Performance, Dependability - and Profit!



P&D MANUFACTURING CO., INC.

STARTING - LIGHTING - IGNITION

19-02 STEINWAY ST., LONG ISLAND CITY 5, N. Y.

Export Sales: Borg Warner International, 36 So. Wabash Ave., Chicago 3, Ill.

Why you should stock and sell Purolator

Your business growth depends on quality
merchandise and sound, aggressive sales
support—Purolator gives you the best of both

Superior Products

Today's Purolator Oil, Air and Fuel Filters—the new, improved Super-Micronic filters—are 20% more efficient than any other leading make. This important advance is more than another example of Purolator leadership—it's your assurance of consistently superior performance that protects your reputation for quality products and reliable service.

National Advertising

Purolator is the first in the filter industry to use the tremendous sales-power of Network Radio. Week after week, during the year, Purolator reaches and sells nearly 5 million people right in their cars and 10 million in homes, over the NBC "Monitor" Network. That means Purolator is talking to *your* customers over the NBC station in *your* area, while they're driving, to give you local-level support that means business.

Sales Promotion

Count on Purolator for the most

effective programs and promotions. Purolator's traditional Spring Filter Check Time, for example, is a key sales-building activity of thousands of outlets from coast to coast. Free, attractive posters, displays and literature give you a complete package for profit. And all through the year you can look to Purolator for timely selling support that means greater volume and profit for you.

Modern Merchandising

The exclusive "Seal of Protection" sticker is just one example of Purolator merchandising leadership in the filter industry.

The "Seal of Protection" is the one and only vehicle today that constantly reminds your customer and you when it's time for a filter replacement. A "Seal of Protection" sticker is packed in every Purolator filter carton. Simply put it on the door jamb or under the hood to make every sale a repeat sale.

Practical Selling Tools

Results are the measure—and Purolator's sales aids are undoubtedly the

most successful and rewarding in the filter industry. The exclusive Filtair-Chek is helping to make Purolator Dry-Type Air Filters the fastest selling, most profitable line in the industry. Yet, the cost of this amazing sales device can be measured in pennies.

The new and exclusive Dispens-Air-Rack is further evidence of Purolator leadership. This practical rack provides two-way service as a display and a complete filter department. It stocks both oil and air filters—makes selection easy—signals filter inventory needs at a glance—saves time and money.

Product Acceptance

Today Purolator filters are probably the best known brand in America. Remember, too, that more people buy Purolator filters than any other make—proof that the fast-moving Purolator line of filters for every car is your best bet for profit.

"Purolator" and "Super-Micronic", Reg. U. S. Pat. Off.



The Standard Equipment Line

PUROLATOR

OIL, AIR & FUEL FILTERS

PUROLATOR PRODUCTS INC., Rahway, N. J.; Toronto, Ontario, Canada

Readers' Clearing House • • by Jack Montgomery

Dust In Air Will Ruin Engine

A spark plug was taken from an engine working in a dusty, sandy area. In the course of servicing this engine a compression check indicated the need for disassembly of the engine. Piston rings, ring lands and cylinder walls were found to be badly

and prematurely worn. An analysis made by Champion Spark Plug Company's chemists of the "lava" formation in the spark plug taken from this engine disclosed melted sand (silicon dioxide) to be the major element. Through careful examination of the engine, a tiny hole was found between the air cleaner and car-

buretor. Even though the owner had maintained the air cleaner faithfully on schedule, large quantities of dust and sand particles had entered the manifold. Be certain the air cleaner is in good condition and that no air leaks exist in the manifold or carburetor flanges.

Stalling Problem With 1955 Ford

We are having a problem with a 1955 Fordomatic transmission. Every time you put the lever in gear the engine stalls. It acts like the bands are not releasing. We removed the transmission, installed new clutches and adjusted everything to specifications. But to no avail.

*Community Chevrolet
Glenside, Pa.*

I WOULD suggest you carefully adjust the throttle linkage. Also check the carburetor adjustments. Similar cases have been reported where the contact points in the distributor were grounding out causing the engine to stall. Check the distributor cam angle and the point condition.

Wants To Test Transm. On Bench

We have been overhauling a lot of Powerglide transmissions lately and would like to know if they can be tested on the bench.

*Martin's Garage
North Hills, Pa.*

YES they can be tested on the bench by revolving the primary pump with an electric drill. The equipment needed for this test is a $\frac{5}{8}$ in. power drill that will drill approximately 300 rpm or more. To adapt the drill a special tool will have to be made to fasten to converter. Replace the specially drilled universal

a new line-up
of **Herbrand**
"HEX-FIT"
COMBINATION WRENCHES
THEY FIT THE HEX!

1. CONTOUR-SHAPED HEAD
FITS IN CLOSE QUARTERS.

COMPLETE RANGE OF POPULAR SIZES ACTUALLY REQUESTED
BECAUSE OF THESE FEATURES!

2. BOX END FORGED ON 15° ANGLE—NOT BENT!

3. ADDED LENGTH... AND RAPIDLY THIN FOR
EASIER HANDLING, BETTER BALANCE.

OBSOLETE
ALL OTHER
WRENCHES

Now, Hex-Fit combination wrenches are available in a complete range of matched sets of popular sizes, from $\frac{3}{8}$ " to 1- $\frac{1}{4}$ " in 12-point openings—and from $\frac{3}{8}$ " to $\frac{3}{4}$ " in 6-point openings.

In its jewel-rich hand polished finish, contour-shaped ends—every feature of design—the new Hex-Fit series reflects Herbrand's 76 years of accepted leadership in producing job-matched tools for the professional mechanic. See them and you'll agree! Write for new Hex-Fit folder, covering complete range of sets and sizes.

Herbrand Tools

Ask your jobber.

HERBRAND DIVISION

THE BINGHAM-HERBRAND CORPORATION • FREMONT, OHIO

Circle 375 on Inquiry Card, facing 3rd Cover

joint yoke attaching bolt with a standard bolt. Remove the oil cooler line fittings from rear of transmission case and install pipe plugs. Connect the four pressure gauges to the following test points. Front pump (on right side of converter housing above the side cover); Low Servo apply; High clutch (release side of low servo); Reverse servo. Fill transmission with 8 quarts of automatic trans. fluid. While adding the last 5 quarts use the power drill to revolve the primary pump to work the oil into the converter and passages. Revolve the primary pump and note the pressures in neutral, drive, low and reverse. They should read as follows. Neutral 150-160 psi. Drive 80-100 psi. Low 125-150 psi. Reverse 125-150 psi.

1957 Ford Getting Poor Gas Mileage

I have a 1957 Ford Country sedan Thunderbird V-8 engine with a 2-barrel carburetor. There have been quite a few bugs in it that have to be ironed out. The most stubborn one is the gas mileage. The first tank of gas gave me 19 miles per gallon. Then it dropped to 16. We then tuned it up with new points and plugs. We adjusted the valves. This increased the mileage slightly for a short time. Then after 2,000 miles it dropped to 13 m.p.g. Also when cruising at 35 to 45 m.p.h. there is a jerk to the car as if you were feeding extra shots of gas. I installed a special float valve and lowered the float setting a 1/4 inch below standard. This helped slightly but didn't cure the jerky motion. Also the carburetor seemed starved at times for gas. Can you give some advice on my problem?

*Irving M. Fox
Whiteley Garage
Garard's Fort, Pa.*

AS you know there are so many things that can affect gas mileage that it is a good idea to check the following items: High fuel pump pressure, engine idle speed set too high, automatic choke not operating properly, accelerator pump stroke not properly adjusted, carburetor bowl vent system not operating properly, clogged air cleaner, power valve opens at low speeds or leaks of fuel bleed-

ing from accelerator pump discharge nozzle. The heat damper valve should operate freely also. Your trouble could be in the automatic transmission if so equipped. I would suggest adjusting the bands and the throttle linkage. It is quite possible that the plugs are failing due to oil running down the valve guides. This could be corrected by installing new valve stem packing.

PROVED 125,000,000 TIMES!



BENDIX STARTER DRIVES

BUILD SERVICE REPUTATIONS!

Automobile service outlets of all kinds proved long ago that genuine, factory-new Bendix* Starter Drives can be one of their most powerful goodwill builders. First in its field for over fifty years, the Bendix drive provides dependable, high-quality performance that makes customers happy—and keeps them that way. Get enough happy customers, and you've got yourself a good service reputation. And you know what that can mean—both in new and in repeat business. Be sure to order genuine, factory-new Bendix drives and parts from your distributor. *REG. U. S. PAT. OFF.

Bendix-Elmira

Eclipse Machine Division
Elmira, New York



new products

THERE'S PROFIT IN THESE ITEMS FOR YOU

310. Repair Kits

The Automotive Division of Wagner Electric Corporation: New packaging features for its hydraulic brake wheel and master cylinder repair kits have been announced. Designed to facilitate handling, stocking, and filling orders, the new "break-apart ten pack" carton containing ten kits of the same part number is easily separated into segments of two, four, six or

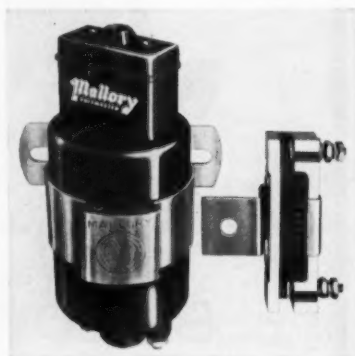


eight kits. Carton holds kits firmly, with a patented gripper, preventing fall-out of kits.

311. Molded Coil

Mallory Electric Corporation: A new design Molded Coil has been introduced. The design and

manufacture of this new coil has been changed from previous coils by the use of an epoxy-resin compound as high voltage winding insulation instead of oil or tar as has been used in the past. The high voltage winding is im-



pregnated under vacuum with an epoxy-resin compound which serves both as permanent insulation and as a solid, practically indestructible case. The coil is available for both 6 and 12 volt systems.

312. Brake Tools

Raybestos Division of Raybestos-Manhattan, Inc.: An eight-piece brake service tool assortment is being offered. The assortment consists of a combina-

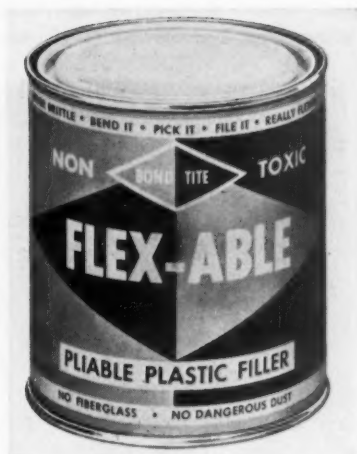


tion $\frac{7}{16}$ " x $\frac{3}{8}$ " special offset box wrench, special star adjuster spoon, brake adjuster wrench for internal expanding parking brakes. $\frac{5}{16}$ " x $\frac{3}{8}$ ", combination brake bleeder and cap wrench, L-shaped tool to remove and replace brake shoe return springs, $\frac{15}{16}$ " combination box and open end wrench, $\frac{7}{16}$ " deep throat offset box wrench, and brake spring pliers.

313. Plastic Filler

L. R. Oatey Co.: "Flex-Able," a new plastic filler has just been introduced. The manufacturer states that when used with its one-tube, easy-mixing hardener, it hardens like steel—yet is

For more information—circle postcard's numbers, page 157



never brittle. It can be bent, picked, or filed. Its pliability permits adherence to any shape and buildup on perpendicular panels without sag. According to the manufacturer, "Flex-Able" is non-toxic and contains no fiberglass to cause dangerous dust.

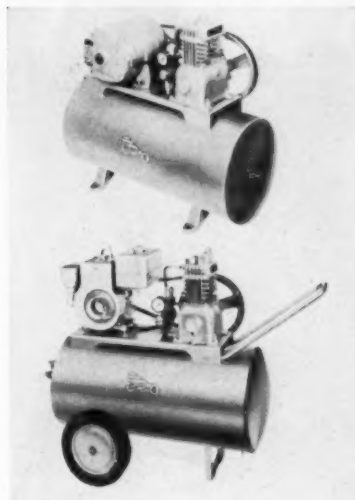
314. Small Stoves

M and B Sales Company: Small gas stoves for cooking are now being marketed. They can be used in motels, cabins, trailers, patios, summer homes. They have porcelain finish and come in three models, a two burner, three burner and four burner stove. The popular three burner stove is 5 inches high, 17 $\frac{3}{4}$ inches deep and 20 inches wide. It weighs 29 lbs. The top and splashers all of white porcelain finish. It has two standard burners and one giant cast iron burner. Burners have aluminum burner heads and low valves.

315. Compressor Unit

Campbell-Hausfeld Co.: A new series of high pressure tank units for heavy duty, high volume air delivery has been announced. The heavy duty equip-

ment features a twin cylinder air compressor, with 2 $\frac{1}{4}$ inch bore x 2 inch stroke, driven either by a 1 HP electric or 3 HP gasoline motor. The compressor has a displacement of 8.0 CFM and provides 4.02 CFM air delivery at 100 PSI. It is constructed for up to 100 lbs. continuous pressure, or 150 lbs. intermittent. The compressor is mounted on a 20 gallon welded steel, pressure tested tank, available either



stationary or mobile with 10 inch rubber tired wheels.

316. Hydraulic Hand Pump

Owatonna Tool Company: A new manually operated, two-speed hydraulic pump, which changes speed and pressure automatically, has been announced. The pump, designed to perform common pulling jobs, provides a maximum pressure of 10,000 PSI at the start of the pull. Then, after the gear, wheel or bearing is broken loose, speed increases and pressure drops automatically. Fingertip control valve assures instant release or pumping action. This 26 $\frac{1}{2}$ pound, dual-

piston pump has an oil capacity of 140 cubic inches.

317. Metal Fasteners

Lamson & Sessions Company: Availability of a new line of plated metal fasteners in kit form has been announced. It contains over 1000 separate fasteners. The "Silverline" plated fasteners are said to resist rust. Each kit contains cap screws, finished hex nuts, flat washers, lock washers, license plate bolts, tapping screws, hammerlock cot-
ters, regular battery bolts and round head stove bolts.

318. Radiator Cleaner

Olin Mathieson Chemical Corporation: A new liquid cleaner that requires no neutralizer for flushing automotive cooling systems, is being introduced. The new product, called Pyro Rapid Flush, can be left in the cooling system and drained when convenient. It



is non-acid, nonflammable and harmless to metal and rubber parts.

(Continued on page 144)

For more information—circle postcard's numbers, page 157

New Products Continued from page 143

319. Kleanout Kit

Rochester Products Division of General Motors: A new clean-out kit for improved carburetor maintenance has been announced. The new kit is designed specifically for on-the-engine Rochester GM carburetor maintenance in connection with engine tune-ups. It contains a

needle and seat assembly, pump plunger, float gauge, necessary clips, choke stat cover gasket, air horn gasket and complete instructions. A feature is a four-ounce can of newly-developed compound for cleaning exterior surfaces of the carburetor. The kit will be marketed under the name "Kleanout Kit."

320. "Non-Rust" Process

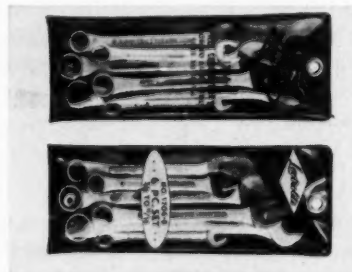
The AP Parts Corporation: A solution to a stocking and handling problem of mufflers has



been announced. It is a non-rust treatment for exhaust and tail pipes. The new coating is now being applied to all tail and exhaust pipes manufactured by AP in Toledo. Though the coating is not too resistant to road rust, it protects pipes from rust that occurs during warehousing the company stated. Under normal storage conditions, the company claims, the treated pipe will remain clean and uncorroded for many months.

321. Tool Bags

S-K/Lectrolite Tools: The clear plastic bags for company's flat wrench sets have been redesigned. They now assure an unobstructed view of the contents, and provide readability of the information contained on the package. The new design, incorporates large, opaque white panels



with reverse lettering. In addition, the design elements have been relocated on the package to permit better display of the wrenches.

Inland Trained Radiator Repairman Soldering Radiator

\$300⁰⁰
A WEEK
SERVICING
RADIATORS!

Advised in
POST LIFE

"Our INLAND Radiator Department brings us an average of \$300.00 A WEEK! (Over \$15,000 a year!) Wish we had installed the equipment years ago!" — Douthit-Carroll-San Chez Co., Memphis, Tenn.

\$10,000 to \$20,000 A YEAR ADDITIONAL VOLUME IS COMMON! "\$16,750 in one year!" — McRill's Auto Repair & Radiator Service, Twin Falls, Idaho. "\$18,000 in one year!" — Clough Auto Parts, Storm Lake, Iowa. Radiator servicing brings more profit per sq. ft. than any other activity in the service area!

20 to 30 MILLION RADIATORS NEED SERVICING YEARLY! Tests prove 83% of all radiators over a year old are partly plugged. Inland equipment shows customer his radiator needs cleaning — is designed for fast easy production methods — stays neat and clean.

Inland, world's largest radiator equipment manufacturer, offers the complete package — Equipment, Training, Merchandising, "Pays-For-Itself" Purchase Plan.

FREE BOOK!

New free 48-page book "Blueprint for Profits" shows equipment, training course, "Pays-for-Itself" purchase plan and experiences of other operators. Take a minute and mail the coupon now.

INLAND MFG. CO.

1108 Jackson St.
Dept. MA-4, Omaha 2, Nebr.

MAIL COUPON TODAY

INLAND MFG. CO., Dept. MA-4
1108 Jackson St., Omaha 2, Nebr.
Please send new free book, "Blueprint for Profits."

FIRM _____ (PLEASE PRINT)

ADDRESS _____

CITY _____ ZONE _____ STATE _____

BY _____ TITLE _____

If dealer, make of car sold _____
Are you now operating a radiator Dept. ☐ Yes ☐ No

322. Electric Polishers

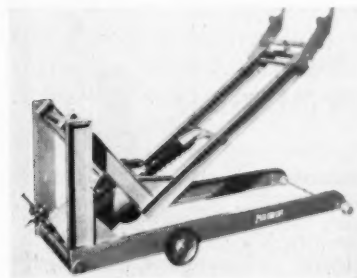
Black & Decker Mfg.: Two new heavy-duty electric polishers have been introduced for use in



automotive appearance reconditioning. They are the No. 99-1 Heavy-Duty Polisher, weighing 10½ lbs., constructed for heavy-duty operation with ball bearings used throughout. It includes a flexible backing pad for getting into tight corners, and a polishing pad. Powered by a Black & Decker-built Polisher Motor, the unit provides torque and speed factors for polishing. The No. 97-1 Heavy-Duty Automatic Polisher offers these same features and standard equipment, plus the automatic feature which permits operator to apply polish directly to the car's surface from the polisher itself.

323. Car Lift

Automotive Equipment Mfg. Co.: New Model 60 LEE Lift has an increased length to accommo-



date 1959 model overhangs. All adapters have been eliminated.

The new lift can service all cars, including new Chevrolets and Chrysler Motors products. The main feature consists of lifting fingers that can be folded back to enable the lift to raise the front end of a car by the plate between the A-frames, or any substantial frame cross member. When the fingers are extended, the rear of the car can be raised by the axle housing, without interfering with the gas tank.

324. Lamp Flat-Pack

Tung-Sol Electric Inc.: Four popular miniature lamp types are now packaged in flat packs. According to the company the new pack simplifies inventory. The new flat pack snaps open with light thumb pressure. Base shows thru rear of pack for at-a-glance inventory. Company
(Continued on page 146)

For more information—circle postcard's numbers, page 157

NOW!

Re-Surface BRAKE DRUMS Right in Your Own Shop

Install this new Van Norman Brake Drum Lathe for *extra profits* with full line Brake Service. Re-surface the Drums on every brake re-line job—make more money—give your customers a *better brake*. The portable, 3-speed, 3-feed Van Norman "RE-TRU" Lathe is designed for *simplicity*... it quickly re-trues passenger car and light truck drums; and, it's priced down *low!*

EXCLUSIVE!

- ✓ Vertically mounted brake drums
- ✓ Van Norman built-in drum micrometer

See what the Van Norman "RE-TRU" offers:

- Automatic feed—Automatic shut-off
- Easy, waist high mounting and operation
- Convenient tool bar positioning controls
- Fits in only 17 x 19 inch floor space
- Tool bar swings safely out of the way
- Clean work space; no chips on the floor
- Complete mobility with optional casters

Ask your Jobber, or write directly for all the details about this easy-to-use Model No. 301 Brake Drum Lathe and the Van Norman "Pay-As-You-Profit" Plan that can help put a Van Norman "RE-TRU" to work making money for you. Van Norman Automotive Equipment Company. Division of Van Norman Industries, Inc., Springfield 7, Mass.

VAN NORMAN

PRECISION
VAN NORMAN
MACHINING

QUALITY IS THE REASON "It Pays to Van Normanize"

Be sure
it's
a genuine
CHANNELLOCK



ASK YOUR
TOOL SUPPLIER
FOR
CHANNELLOCK
PLIERS—
BY NAME

Why? Only Channellock has undercut, interlocking channels that can't slip no matter how tight you grip. Only Channellock has the reinforced tension edge to withstand maximum gripping force. These exclusive features have made the Channellock No. 420 the first choice of skilled mechanics everywhere. So be sure you get only genuine Channellock pliers. Look for the trademark on the handle.



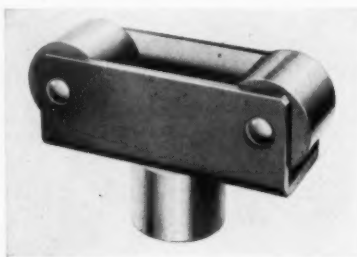
CHAMPION DeARMENT TOOL COMPANY
MEADVILLE, PENNSYLVANIA

New Products Continued from page 145

states that for the present lamp types nos. 1034, 63, 1154, and 67, which fulfill 60 per cent of service requirements, would be packaged 10 lamps of a type to each carton. The entire Tung-Sol miniature line will be available in the flat pack shortly.

325. Jack Adapter

Walker Manufacturing Company of Wisconsin: A new jack adapter, the Rota-Way, designed to save time in oil pan removals on modern, lowslung cars, is announced. The new adapter, which fits on any 3 or 5 ton portable hydraulic jack, allows free rotation of the crank shaft while the engine is raised. In raising the en-



gine the rollers contact the harmonic balance pulley attached to the front end of the crankshaft. With the pulley resting on rollers, counterweights and crank throws can be rotated away from the oil pan while the engine is supported. The Rota-Way eliminates the need for accurate crankshaft rotation before raising the engine and the time-con-

suming lowering and raising of the engine to correct the rotation. The Rota-Way fits on the Walker No. 47 two-stage pedestal type transmission jack for use under a hoist.

Speed Truck Tire Changes WITH **JOB-DESIGNED KEN-TOOLS** EASIER . . . QUICKER

Quality tools for trucks, buses, farm tractors, and aircraft. Hand forged from chrome nickel alloy steel. Tougher, last much longer!

T-19 24" Truck and Bus Straight Spoon

T-20 24" Truck and Bus Curved Spoon

T-29 18" Tool for starting first bead down over rim

T-48A 40" Tool for removing and replacing lock rings

**JOB-DESIGNED
KEN-TOOL LOCK RING REMOVERS**
stand up under tremendous leverage

T-23 24" For Firestone RD, R-1 Rims

T-25 New 18" Ring Remover for 5" Firestone Rims

T-22 18" Combination Lock Ring Tool

T-27 18" Ring Tool for R-1 Rims

SEE YOUR JOBBER on the complete line of Job-Designed Ken-Tools. Forged by the largest exclusive manufacturer of top-quality Tire-changing Tools and Equipment. **THE KEN-TOOL MFG. CO., AKRON 5, OHIO.**

**JOB-DESIGNED
KEN-TOOLS**
TIRE CHANGING
TOOLS KNOWN, USED
AROUND THE WORLD

Circle 378 on Inquiry Card, facing 3rd Cover

Buy

Bonds



WIN THE WAR ON RUST!



**HEAVY DUTY
RADIATOR CLEANER**

...MADE FOR THE PROFESSIONAL!

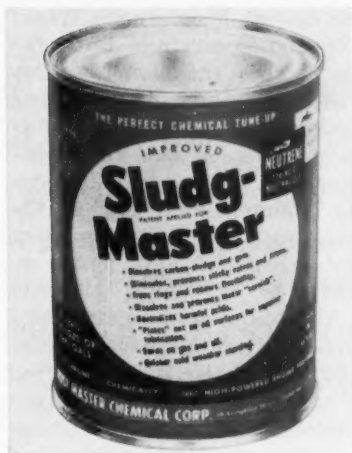


Radiator clogged with rust and scale? Swoosh it clean as a whistle in no time with Permatex. This powerful product restores good-as-new circulation.

SEE MORE PERMATEX
PRODUCTS FEATURED ON PAGE THREE

326. Acid Neutralizer

Rust Master Chemical Corporation: New improved Sludg-Master with newtrene, the acid neutralizer, is being marketed. According to the company it has greater detergency than ever. It eliminates sticky valves by removing the carbon, gum and "varnish" on valves, guides and valve-lifts and restores lost com-



pression by freeing sticking rings which allow "blowby."

327. Replacement Parts

Hall Products Division of C. M. Hall Lamp Company: New replacement items introduced are the Duro-flex universal speedometer core kits, Duro-flex speedometer cable-and-casing assembly, and dual head-lamp assemblies for 1958 General Motors cars. Both Duro-flex speedometer cable items introduce novel features for installation convenience and improved performance. The 21-strand replacement core comes in two lengths, enabling the mechanic to tailor-fit any car or truck speedometer with one or the other. Each kit contains a properly-measured amount of lubricant especially compounded for speedometer cables. Core has one square end, and kits also include a square tip for tailored end, a crimping tool and installation instructions.

328. Tail Pipe Racks

Walker Manufacturing Company: New tail pipe racks have been developed to eliminate many of the problems involved in stocking tail pipes. The new racks are available in two designs. Single entry for use against walls and double entry for open areas. Both designs are available in 5 foot "starter" and 5 foot "add-on" units. Each

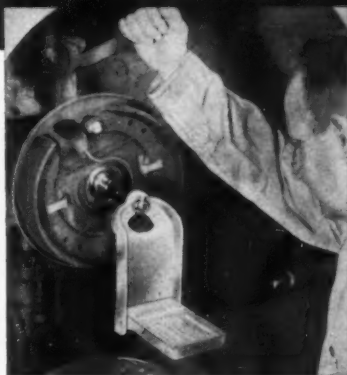
single entry section holds approximately 75 pipes and the double entry units hold approximately 150 pipes. Movable, threaded rod dividers provide variable sections for each type of pipe. Constructed of slotted angle steel, new racks offer stability without wall anchors and can be assembled in 15 min.

(Continued on page 150)

For more information—circle postcard's numbers, page 157

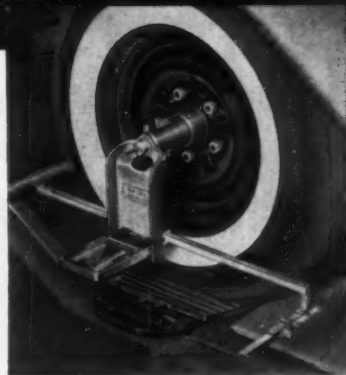
WEAVER GAUGES

quickly and accurately check
all 4 wheel alignment factors--
caster - camber - king pin inclination - toe



3-WAY ALIGNMENT GAUGE

The Weaver 3-Way Gauge permits checking and correcting caster, camber and king pin inclination with wheel either on or off. All readings are taken from spindle, thus avoiding errors due to crooked wheels or rims. King pin inclination and caster are checked in one operation. Camber reading is automatic.

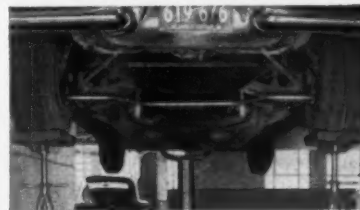


TRU-WAY TOE GAUGE

The Model WJ-56 Tru-Way Toe Gauge is used in conjunction with a pair of spindle-mounted 3-Way Gauges to quickly and accurately measure "toe" angle. A second scale on back of gauge enables mechanic to observe progress of tie-rod adjustment without moving to front of car.

TORSION SUSPENSION GAUGE

The Weaver Torsion Suspension Gauge is designed for checking and adjusting torsion suspension carrying heights on Chrysler Corp. cars. It can be used with vehicle on Weaver Twin Post Lifts and combination wheel and service stands, Roll-on type lifts, wheel alignment racks, or on the floor.



WEAVER

WEAVER MANUFACTURING CO., SPRINGFIELD, ILL., U.S.A. SERVICE SHOP EQUIPMENT

Complete line includes: Twin Post Lifts .. Triple Post Lifts .. Single Post Roll-on, Free-Wheel and Frame Type Lifts .. Unit Lifts .. Bumper Jacks .. Car Washers .. Wheel Alignment Equipment .. Headlight Testers .. Brake Testers .. Wheel Balancing Equipment .. Jacks .. Wheel Dollies .. and Air Compressors.

Cooling System Maintenance Week

The week of May 17th through May 23rd has been designated "Cooling System Maintenance Week" for American motorists.

This national "Week" was inaugurated last year as a public service by Union Carbide Chemicals Company, a Division of Union Carbide Corporation. Its purpose is to remind the motor-

ist to "summerize" his car's cooling system. And do it before the onset of hot weather causes him serious problems.

Over 10 per cent of all highway accidents due to road obstructions are caused by stationary vehicles. A principle cause for road breakdown is the over-heated engine. This danger becomes particularly acute during the first warm weather of the year. Usually, it catches

many motorists with worn-out winter anti-freeze still in their cars' cooling systems.

These facts led Union Carbide to develop plans for a national "Cooling System Maintenance Week." Time: each spring. During this "Week" the public is to be reminded that the danger season for their cars' cooling systems is at hand.

The dates for "National Cooling System Maintenance Week" were chosen carefully. Dates fall just before the Memorial Day weekend. This is the first "long weekend" of the spring-summer vacation season. It is hoped that impact of "National Cooling System Maintenance Week" on the motoring public will cause very few drivers, if any, to tie up traffic.

An all-important person in this process is the automotive service specialist. He is in a position to see that the purpose of the program is achieved. Most Americans have long since abdicated any technical responsibility for their cars' maintenance. They depend almost exclusively on the service specialist to remind them of the things that need attention.

A reminder to regular customers is generally all that is needed. It makes mighty good business sense to give them this word.

Cooling system maintenance jobs are a good source of profit for the operator.

A cost reducing feature is that radiator drain-offs and cooling system flush-out don't tie up revenue-producing lube racks and wash bays. They can be handled any place out on the apron where there are hose connections.

A frequent "bonus" feature of this servicing is available. The service specialist is presented with opportunities for replacement parts sales. Again, he can often find additional repair work needs during the course of a cooling system inspection.

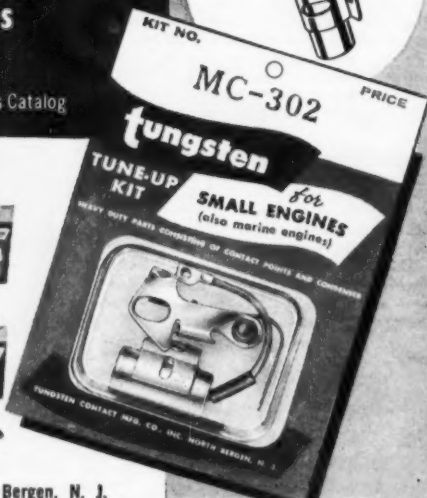
These small engine ignition parts mean BIG BUSINESS!

TUNGSTEN

PACKS THEM IN HANDY
TUNE-UP KITS
ON CLEVERLY DESIGNED
MERCHANDISING RACKS

for
**OUTBOARDS
SCOOTERS
GARDEN TRACTORS
POWER MOWERS
CHAIN SAWS
INBOARDS**

Write for Small Engine Parts Catalog



TUNGSTEN CONTACT MFG. CO., North Bergen, N. J.

Leadership

A product of the Chevrolet School for 20 years

Last year marked the 20th Anniversary of the Chevrolet Post-Graduate School of Modern Merchandising and Management. It was established in 1938 for the purpose of training outstanding men for leadership positions in the quality Chevrolet dealer organizations throughout the United States, Canada, and overseas. Twenty straight years of continual growth prove its unequalled success. The Chevrolet School, the oldest of its kind in the world, is famous as the "West Point of Industry," and well known for the great help it has been in building Chevrolet dealerships into the splendid and successful organizations they are today.

With its 48th consecutive session now completed, the School has graduated more than 2,000 men, nearly 50 per cent of whom are now Chevrolet dealers or dealership managers. Graduating classes with truly successful records!

It's no wonder that 1958 marked but a milestone in the "auto academy's" progress. Year after year it has found it necessary to vastly expand its program and facilities to meet the growing need. Today the carefully chosen faculty numbers over 100 General Motors executives and specialists in the automotive industry. Competent judges have called the Chevrolet School "the standard" in merchandising and management training, and rank it equivalent or superior to the Nation's leading universities.



W. E. Fish, General Sales Manager, Chevrolet Division of General Motors says, "We're proud, in Chevrolet, of our connection with the School and our opportunity to share, through so many of its graduates, in the maintenance of the great American institution of Chevrolet dealerships."

T. O. McLaughlin, Director of the Chevrolet School, has this to say about its continued growth and success. "How extensively the school has grown is reflected in the fact that applications have increased from 27 in 1938 to a present-day total of over 800 in the United States alone."



Chevrolet Division of General Motors, Detroit 2, Michigan



Shop Kinks Continued from page 46

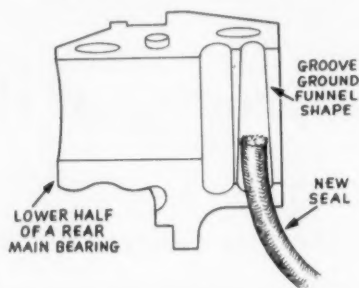
How To Make A Vacuum Diaphragm Tester

Here is a very impressive way to show a doubting customer that a bad vacuum diaphragm will make his car use oil. Any small jar with a screw top can be used. Solder two pieces of $\frac{1}{4}$ inch tubing to top of lid, extending one piece about $\frac{1}{2}$ inch from bottom.

Install tester in the vacuum line from pump to manifold. On cars that do not have hose joints at pump, fittings can be easily made. After installing, start the engine. The customer will see for himself where his oil has been going. *Richard G. Oeffinger, Oeffinger's Garage, 1704 Lopp Ave., New Albany, Ind.*

Crankshaft Oil Seal Replacing Tool

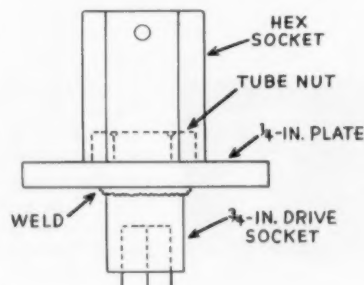
Obtain a rear main bearing cap from any six cylinder Chevrolet engine. Cut cap in half and grind a smooth taper in oil seal



groove. Bolt cap in place. Wrap a 12 inch length of wire around the end of a new seal. Apply grease to the packing. Insert wire up and around the crankshaft until seal enters funnel. Apply slight tension to free end of wire, while slowly turning flywheel until packing is in place. Remove tool. Cut ends off flush with the block. *William Gerspach, Jr., 520 Rugby Road, M. R. #12, Phillipsburg, N.J.*

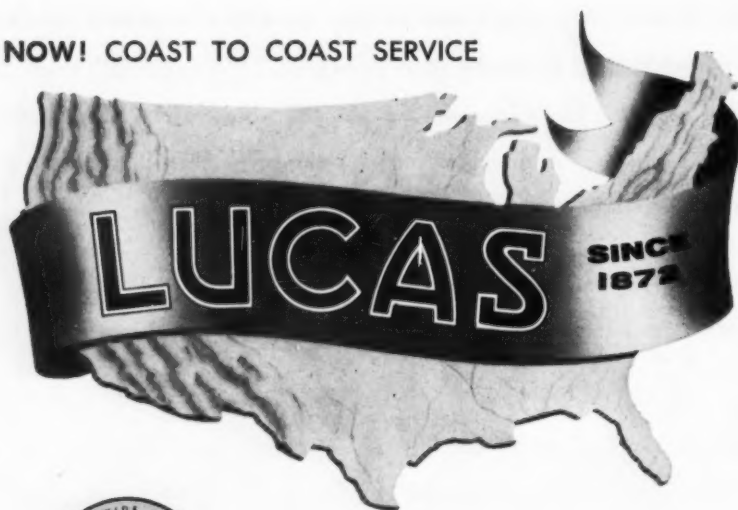
Adaptor To Remove Axle Tube Nuts

The illustration shows an adaptor I made to remove axle tube nuts on trucks. Sometimes the tube gets flared from a bad bearing on a broken axle. By using a $\frac{3}{4}$ inch tee handle the socket can be held true on the nut. We find it very effective and



well worth the time and material used to build it. *E. H. Funderburg, c/o Guinn-Robbins Co., Inc., 703 So. 16th St., Boise, Idaho.*

NOW! COAST TO COAST SERVICE



**GENUINE LUCAS
ORIGINAL EQUIPMENT
REPLACEMENT PARTS**

GENERATORS
STARTERS
DISTRIBUTORS
COILS
BATTERIES
LAMPS
WINDSHIELD WIPERS
REGULATORS
HORNS
GIRLING BRAKES
GIRLING
SHOCK ABSORBERS

FASTER THAN EVER!

Wherever you are . . . whatever you need . . . your local Lucas factory branch ships you the genuine Lucas original equipment you want . . . **FAST!** Expanding every day, Lucas is right on the job to help you fill America's growing demand for the world's finest electrical equipment and accessories for British cars.

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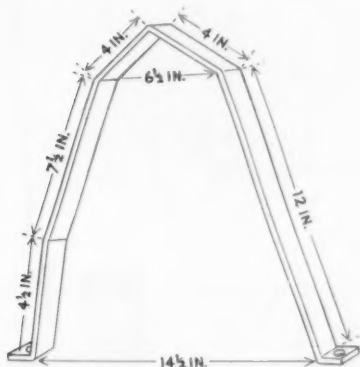
JACKSONVILLE 400 S. Edgewood Avenue • EVergreen 8-7607

SAN FRANCISCO 643 Seventh Street • MArket 1-7831

LOS ANGELES 5025-5029 W. Jefferson Blvd., P.O. Box 78508
REpublic 1-7211

Tool For Removing Intake Manifold

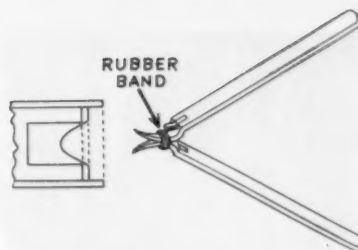
On the late model Fords, 1958 and later, it is a tough job for one man to remove and replace the intake manifold due to its weight. I made a tool from metal laying around the shop which



allows one man to do the job. Attach tool to manifold, then use a chain hoist to raise the manifold off the engine, *Hanley Hilgard, 230 Union St., New Richmond, Va.*

Tool For Removing Piston From Front Wheel Cylinder

When rebuilding Chrysler products front wheel cylinders, at times it is hard to remove the piston. We find that two beer can openers held together with a rubber band at the bend on the sharp end, makes a good tool for them. Even the most stubborn ones. Just put the ends held by the rubber band into the indentation in the end of the piston and



squeeze the outer ends of the can openers and pull. We find this saves time and tempers. *Arnold A. Frizell, c/o D. L. W., Inc., 80 Water St., Haverhill, Mass.*

If you have an original idea for a special tool, a short cut on any job or any trick of value to others, write it down and if necessary make a rough sketch. Just make it clear. Send it to Motor Age. If your Kink is used it may bring you \$7.50 or \$25. All entries become the property of the Chilton Company. Because of the quantity of entries sent in, none can be returned.




Battery operated power jack

\$199.00

Hydraulic powered—no bothersome air hoses, pump handles or wires!
Built-in automatic battery charger.


For complete information write Crown Controls Co., Inc.
Dept. M—New Bremen, Ohio

Circle 381 on Inquiry Card, facing 3rd Cover



DOUBLE ACTION RADIATOR CEMENT

...MADE FOR THE PROFESSIONAL!



This famous product works twice as hard... sealing leaks AND preventing rust. Fast! An enemy to leaks and rust, BUT won't hurt copper, bronze, brass, aluminum, rubber.

SEE MORE PERMATEX PRODUCTS FEATURED ON PAGE THREE

IMPROVE EVERY AUTOMOTIVE PAINTING OPERATION



PRIMER #300

HOLD DOWN

HAIR LINES
SAND SCRATCHES

HOLD OUT

GLOSS OVER
OXIDIZED PAINT
PRIMER SURFACES

SAVE MONEY

SAVE MAN HOURS!
COSTLY REPAINT JOBS

NO DRYING TIME REQUIRED FOR XIM FLASH BOND DELIVER THAT CAR TO YOUR CUSTOMER WITH THAT "WET LOOK" XIM is also being used successfully by Truck, Mobile Home and Aeronautical painters. Ask your paint supplier for XIM Flash Bond No. 300 for the ultimate in long lasting finishes.

H. FORSBERG COMPANY 5103 LAKESIDE AVE. CLEVELAND 14, O.
PROVED IN THE FIELD FOR MORE THAN TWENTY YEARS

Circle 380 on Inquiry Card, facing 3rd Cover

TUNEUP FOR YOUR B&D TOOLS



For genuine Black & Decker repairs check Yellow Pages under "Tools-Electric" for address of nearby Black & Decker

FACTORY SERVICE BRANCH

Free tool inspection when requested • Genuine B&D parts used • Factory-trained technicians handle all work • Standard B&D Guarantee at completion of recommended repairs • Fast service at reasonable cost.

Or write for address of nearest of 48 branches to:
THE BLACK & DECKER MFG. CO., Dept. S5204, Towson 4, Md.



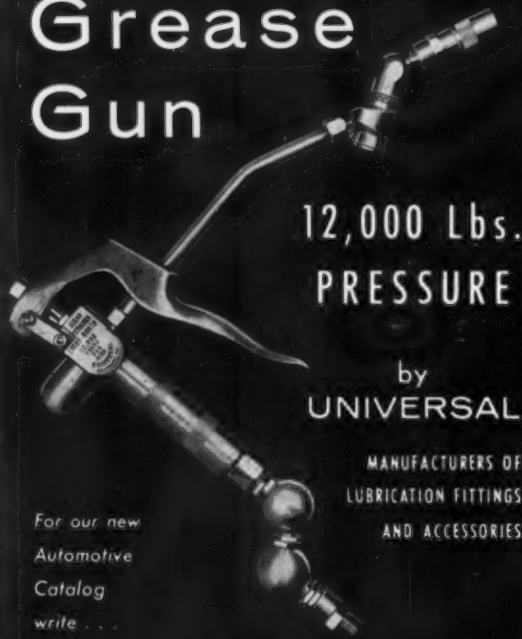
Black & Decker®



QUALITY ELECTRIC TOOLS

Circle 382 on Inquiry Card, facing 3rd Cover

Grease Gun



12,000 Lbs.
PRESSURE

by
UNIVERSAL

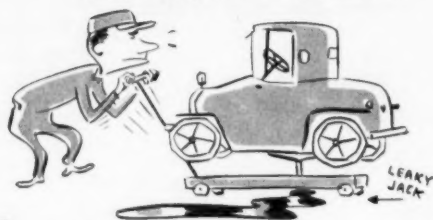
MANUFACTURERS OF
LUBRICATION FITTINGS
AND ACCESSORIES

For our new
Automotive
Catalog
write...

UNIVERSAL LUBRICATING SYSTEMS, Inc.
Automotive Division • Oakmont, Pa.

NOW...

Repair-it-yourself and SAVE MONEY!



Compare the low price of a JACK-PACK jack repair kit to the cost of your last jack service job! Easy-to-install JACK-PACKS save you money...time...long equipment tie-ups. Order JACK-PACKS from your jobber today. For longer life, re-fill your jack with non-foaming JACK-PACK hydraulic jack oil.

jack-pack

Write today for new illustrated JACK-PACK folder:

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2115 NO. MARIANNA AVE.
LOS ANGELES 32, CALIF.

The easy, economical way...

KRYLON® "PUSH BUTTON" PRODUCTS



CLEAR ACRYLIC SPRAY

- Long-lasting protection for car chrome
- Sell it to your customers for home use



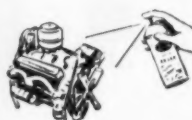
BATTERY TERMINAL COATING PROTECTOR

- Increases battery life by protecting against current loss, acids, corrosion
- Orange tracer color
- No muss, no fuss...dries in minutes



RUST RELEASE PENETRATING OIL SPRAY

- Instantly, easily frees rusty bolts and nuts and frozen parts. Lubricates as it penetrates.
- Spray reaches "hard-to-get-at" areas



SPRAY CLEANER AND DEGREASER

- Rapidly dissolves oil and grease, which can then be water-rinsed for a clean surface
- Remarkably effective on car and truck engines, outboard motors, appliances, power mowers, etc.

NEW! Glowing Fluorescent Spray Paints

NEW! Farm Implement Spray Enamels

A PAINT SHOP IN YOUR HAND!

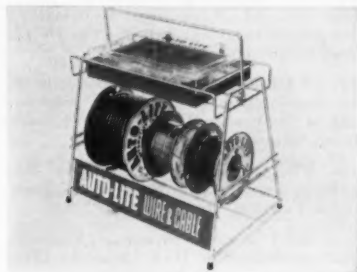
Krylon All-Purpose Primer Spray,
Spray Enamels (22 colors), Varnish Sprays

Call your jobber or write KRYLON, INC., NORRISTOWN, PA.

New Products Continued from page 147

329. Rewiring Kit

The Electric Auto-Lite Company: A lightweight Rewiring



Kit has been introduced. The kit comes with three spools of Auto-Lite wire and tray on top for terminal kit and/or tools. Available with or without terminals, the kit has swing-out rack that makes reloading of wire spools easy.

330. Parts Washer

Graymills Corporation: Whirly-Bird Parts Washer has been introduced. It is designed to fit a 5 gal. can of Graymills carburetor cleaner or solvent. It is electrically operated. Parts to be cleaned are placed in the basket and immersed in solvent. The motor driven propeller below the screened basket bottom whirls the solvent around, over and through all parts.



331. Wheel Dolly

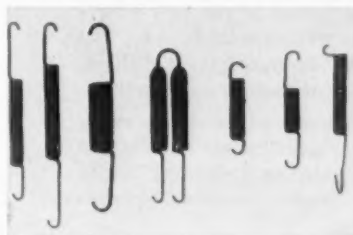
Weld Built Body Company: Introduced recently is a new type wheel dolly. The Wheel Dolly is in three parts. According to the company it can be assembled in two minutes. Features of the dolly are safety chains and three adjustable positions that will accommodate any type car. Weight



of dolly is approximately 140 lbs. Road speeds up to 50 miles an hour can be maintained.

332. Spring Assortment

Lee Mfg. Co.: Now available is a complete line of truck brake shoe return springs. These springs are packaged in axle sets and are available in an assortment covering all popular make trucks. According to the manu-



facturer, this assortment saves time hunting for hard-to-find truck springs.

333. Electronic Device

Terado Company: The Terado Electra is an electronic device for changing 12 volts DC car battery power to 110 volts AC electricity. This conversion of electricity enables the user to



operate many household appliances such as radios, phonographs, lights, electric razors, dictation machines, small tape recorders and many other electrical devices which require no more wattage than the capacity of the Electra which is 52 watts. These appliances are made dual in use. To operate plug into the cigarette lighter of car. The Electra has a case of leatherette finish and measures only 3" x 2 1/4" x 5 1/2".

334. Gear Lube

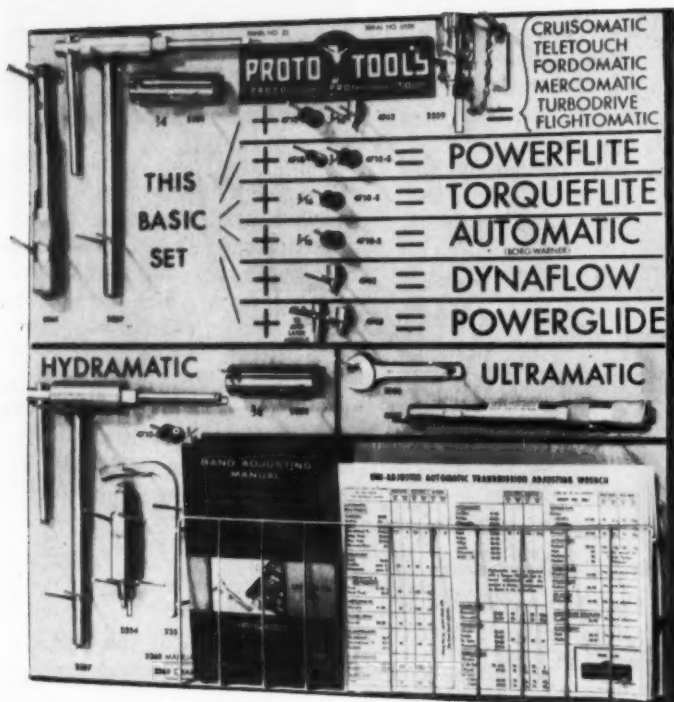
Racing Division of the D-A Lubricant Company, Inc.: D-A Speed-Sport Gear Lube, designed especially for competition automobiles, is now being marketed. D-A Speed-Sport Gear Lube, it is said, prevents metal scoring in transmissions and differentials; protects differential pinions from extreme heat and pressures; prohibits gear train failures caused by inadequate film strength; and eliminates drag caused by oil thickening.



For more information—circle postcard's numbers, page 157

Only PROTO really proves it!

Proto Method designed by John Kamuk,
Associate Director, Auto Mechanics Institute; Member, S.A.E.



Illustrated Manual
No. 2360 shows simple
Proto Method.

Chart No. 2361 gives
factory specifications for all
automatic transmissions.

Mr. Mechanic: On this Panel, Proto proves to you how simple external band adjustments on automatic transmissions can be. The Panel shows you the tools you need; the illustrated Manual shows you how; the Chart is a handy reminder of factory specifications.

Most manufacturers recommend band adjustments every 15,000-20,000 miles. You can make these adjustments quickly and safely. The Manual points out danger signals indicating major repairs so that you can send your customer to a specialist when necessary.

This is good, new business. See your Proto Jobber, and get started with the Proto Method.



Just 13 tools, with Manual and Chart,
handle all band adjustments. Ask your
Jobber for the complete Proto Band
Adjusting Set No. 2350. Includes steel box.



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1706 Oxford East, London, Ontario, Canada

PROTO IS A DIVISION OF PENDLETON TOOL INDUSTRIES, INC.

Calendar of Coming Events

Apr. 18-19—Ohio Automotive Wholesalers Association convention, Neil House, Columbus.

May 1-3—National Automotive Radiator Service Assn. convention and trade Show; Sheraton Hotel, Philadelphia.

May 4-6—American Petroleum Institute, Div. of Marketing, Lubrication Committee meeting, San Marcos Hotel, Chandler, Ariz.

May 17-19—6th Annual Convention of the Automotive Wholesalers Association of Tennessee, Castle in the Clouds Hotel, Chattanooga, Tennessee.

May 17-20—Automotive Engine Rebuilders Assn. convention, Royal York Hotel, Toronto, Ontario.

June 14-19—SAE Summer Meeting, Chalfonte-Haddon Hall, Atlantic City, New Jersey.

June 24-27—The National IGOA Convention, Denver Albany Hotel, Denver, Colorado.

Sept. 27-29—Southeastern Marketing Association; first convention, Biltmore Hotel, Atlanta.

Oct. 28-30—SAE National Fuels and Lubricants Meeting, La Salle Hotel, Chicago.

Nov. 2-5—The Automotive Warehouse Distributors Association, Inc., annual convention, Muchlebach Hotel, Kansas City, Missouri.



Classified Advertisements

SALESMEN WANTED: \$1000.00 a month selling automotive shelving parts bins-counters-gasket and tail piperacks-shop equipment. Terrific commissions. Free 32 page catalog-jobber discounts. BFC Corporation, 2860 E. Hedley, Phila. 37, Pa.

SALES CAREER: Nation-wide automotive parts mgr.-distributor offers depression-proof sales opportunity. Protected territories with established accounts now available. Average earnings \$8,000 to \$10,000 per year. Great opportunities for advancement to executive positions. Write today giving background & sales experience. Box 8, MOTOR AGE, 5601 Chestnut St., Philadelphia 39, Pa.

AGENTS WANTED: Leading manufacturer of wet and dry type storage batteries now setting up to sell through manufacturer's agents. Many territories available. Give complete résumé first letter. Box 11, MOTOR AGE, 5601 Chestnut Street, Philadelphia 39, Pa.



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THE LAST



LAFF



A reporter was sent into the hills to interview a local character who was supposed to be a supermarksman.

Throughout the region, on trees, fences and walls were target bull's eyes with holes in the dead center, evidence of uncanny skill with a rifle. The reporter was surprised when he caught up with the "deadshot" to find he was the village dimwit.

"You certainly are a sharpshooter," said the reporter: "how do you do it?"

"Easy as pie," answered the dim-witted rifleman. "I shoot first and then draw the circle."

The lady was having some difficulty trying to board the train with a horse.

"Are you out of your mind, lady?" exploded the conductor.

"I can't help it," the woman replied, pushing her horse up the steps to the Pullman, "he gets sick on buses."



A nagging wife to her husband: "If you don't listen to me, I'm going back home to mother."

Husband: "Promises, promises, all I ever get are promises."

A small boy after his first train ride, was telling his pal about his new ambition—to be a railway conductor.

"But" asked the friend, "wouldn't you rather be an engineer and run the train?"

"No siree," he replied. "The conductor gets all the comic books the kids leave on the train."

Husband: "My dear, I have taken you safely over all the rough spots of life, haven't I?"

Wife: "Yes, I don't believe you missed any of them."



The eccentric man walked into a restaurant and sat at a table.

"What will you have, sir?" said the waiter.

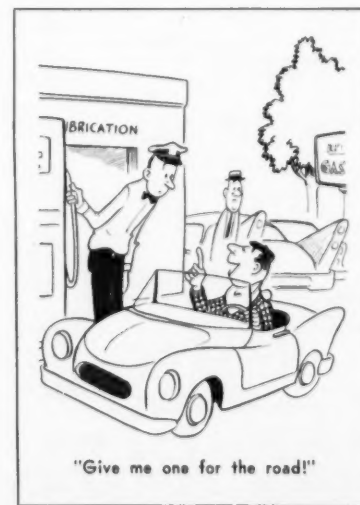
"Not a thing," replied the customer. "I'm not hungry."

The waiter stared.

"Then what's the idea of coming in here?"

The customer shrugged his shoulders nonchalantly.

"It's very simple," he explained. "This is my lunch hour."



"Daddy, do you keep growing taller all the time?"

"No, Son, why do you ask?"

"Because the top of your head is poking up through your hair."

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LT 1 Idea Book

Bear Mfg. Co.: Completion of a new 20-page Idea Book printed in color has been announced. It contains full-color illustrations of company's services showing how equipment can be located for greater efficiency. Illustrations show how business can be increased by proper selection and placement of equipment. Book also contains ideas for exterior displays, showing how the proper use of signs can make shop fronts more attractive to new business.

LT 2 Tools Catalog

K-D Tools: A complete general catalog of specialized automotive hand tools is being distributed. With more than 130 listings, the book is illustrated and operating procedures on all tools are explained. Included are tools for valves, radiators, piston rings, ignition, brakes, body work and many specials.

LT 3 Muffler Guide

Walker Manufacturing Co. of Wisconsin: A new 1959 Muffler Installation Guide is being offered. The guide includes photos and easy-to-read

instructions for removing and replacing mufflers. Special suggestions and short cuts are given for particular car makes and models. This provides a thorough guide for all types of installations.

LT 4 Wall Chart

The U.S. Axle Company, Inc.: A pictorial wall chart highlighting the common faults responsible for most axle shaft breakdowns is now available. The chart serves to promote careful check-up and installation as well as more careful driver-handling of heavy vehicles.

LT 5 Tire Pamphlet

The Armstrong Rubber Company: A five page article entitled "Truck Tire Selection and Care" has been reprinted from the Armstrong Tire News and is now available in pamphlet form. Written by F. Kenneth Miller, an Armstrong field service engineer, this article gives practical hints on how to get more mileage from truck tire dollars.

LT 6 Reference Guide

Kem Manufacturing Company: Firm has announced that in response to wide demand for past issues, a new cross index reference sheet is available. The reference sheet identifies passenger cars by model name and by model number. Model years covered by this handy cross-reference sheet range from 1946 up to and including 1959.

LT 7 Special Wall Chart

National Carbon Co., Division of Union Carbide Corp.: A detailed wall chart—printed in four colors—is available. Chart shows all parts of the automotive hydraulic brake system. Also shown are cut-aways of master and wheel brake cylinders.

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